CT-R442

SERVICE MANUAL

Ver 1.0 2003.03

AEP Model
UK Model



Model Name Using Similar Mechanism	CT-X442
Tape Transport Mechanism Type	CDS-363AG1-A

SPECIFICATIONS

RADIO SECTION

(FM)
Frequency Range: 87.5 MHz – 108 MHz
Intermediate frequency: 10.7 MHz
Usable Sensitivity: 12.7 dBf
50 dB Quieting Sensitivity: 17.2 dBf
IF Rejection: 100 dB
Frequency Response: 30 Hz – 15,000 Hz
S/N Ratio: 67 dB
Stereo Separation: 35 dB at 1 kHz
Alternate Channel Selectivity: 90 dB
Capture Ratio: 3 dB
(MW)
Frequency Range: 531 kHz – 1,602 kHz
Intermediate frequency: 10.71 MHz/450 kHz
Usable Sensitivity: 30 µV (30 dB)
(LW)
Frequency Range: 144 kHz – 288 kHz (1-kHz/9-kHz steps)
Intermediate frequency: 10.71 MHz/450 kHz
Usable Sensitivity: 30 µV (30 dB)

TAPE SECTION

Tape Speed: 4.8 cm/sec.
S/N Ratio: 50 dB
Frequency Response: 40 Hz – 14,000 Hz
Stereo Separation: 40 dB

AUDIO SECTION

Max. Power Output: 40 W × 4 channels

AUX input

Input sensitivity (load impedance) AUX: 300 mV (10 kΩ)

GENERAL

Power-Supply Voltage: 14.4 V (11 to 16 V allowable), DC, negative ground
Load Impedance: 4 Ω
Tone Control: Bass ± 10 dB at 100 Hz, Treble ± 10 dB at 10 kHz
Preamp Output Voltage (load impedance): 2.2 V (10 kΩ)
Installed size: 182 (W) × 53 (H) × 155 (D) mm
Supplied Accessory: Carrying case (1)

• Specifications and external appearance are subject to change without notice due to product improvement.

FM/MW/LW CASSETTE CAR STEREO

9-877-102-01
2003C0500-1

Sony Corporation
e Vehicle Company
Published by Sony Engineering Corporation

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SECTION 1
GENERAL

This section is extracted from instruction manual.

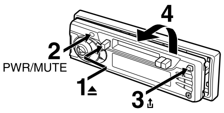
THEFT PROTECTION

Take the front panel with you when leaving the car, and keep it in the supplied carrying case.

Detaching the front panel

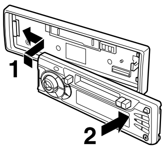
Before detaching the front panel, remove the cassette to prevent possible damage to the unit.

1 Press ≜ to remove the cassette.
2 Press and hold **PWR/MUTE** until the unit turns off.
3 Press ⩯. (Hold the panel with one hand to prevent accidentally dropping it.)
4 Remove the panel.



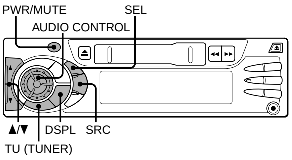
Attaching the front panel

1 Engage the left side of the front panel to the left catch on the unit.
2 Push the panel forward until it locks. Be sure not to press any buttons while you are attaching the panel.



Note
Do not touch the connector on the reverse side of the front panel. This could cause a poor or faulty connection.

BASIC OPERATION, AUDIO AND CLOCK ADJUSTMENT



Turning the unit on/off

- You can turn the unit on by pressing any button on the front panel except ⩯, ≜, ◄◄, ►► and **AUDIO CONTROL**. The unit also turns on when you insert a cassette.
- Press and hold **PWR/MUTE** until the unit turns off.

Note
Most operations described in this manual require the unit to be turned on before starting the operation, unless explicitly stated otherwise.

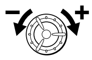
Changing the source mode

1 Press **SRC**.
Pressing **SRC** cycles through source modes in the following order:

F1(F2/F3/MW/LW) → **FWD(REV)*** → **AUX IN** → (back to F1)

* Tape Play mode (available while a cassette is in the unit)

Adjusting the volume



1 Turn **AUDIO CONTROL**.
VOL (volume) indicator flashes.

Muting the sound

1 Press **PWR/MUTE** briefly.
MT indicator flashes.
To restore volume, briefly press **PWR/MUTE** again.

Adjusting sound

You can select the following modes for adjusting sound depending on the music you listen to: BASS (low frequencies), TRE (high frequencies), BAL (left/right), FAD (front/rear) and H-BASS (high bass).

1 Press **SEL** repeatedly to select the mode to be adjusted.
Pressing **SEL** cycles through the modes. The selected mode's indicator flashes (except for H-BASS).
2 Turn **AUDIO CONTROL** to increase or decrease the level for the selected mode (except for H-BASS).
In H-BASS mode, turn **AUDIO CONTROL** to select 1, 2, 3 or off.

Note
Adjust the level or select on/off within 5 seconds, or the selected mode will return to previous state.

Aligning the source levels

(Source Level Adjuster)

Volume may vary each time you change the source mode. In this case, you can align each source mode's volume to almost the same level.

1 Press **SRC** or **TU (TUNER)** repeatedly to select the desired mode.
2 Press **DSPL** while pressing **SEL**.
"LEVEL 0" appears on the display.
3 Turn **AUDIO CONTROL** to adjust the level.

Note
Adjust the level within 5 seconds, or the selected mode will be canceled.

Restoring the factory settings

1 Turn off the unit.
2 Press and hold **DSPL** until "LEVEL --" appears on the display.

Note
You can restore the factory settings only for VOL, BASS, TRE, BAL, FAD, and H-BASS, and aligned source volume levels.

Setting the beep tone

1 Turn off the unit.
2 Press and hold **SEL** until "BEEP" appears on the display.
3 Turn **AUDIO CONTROL** to select ON or OFF.
4 Press **SEL**.

Setting the clock

1 Press and hold **DSPL** until the clock indication flashes in the display.
2 Press ▲ (to set hour) or ▼ (to set minute) and turn **AUDIO CONTROL**.
3 Press **DSPL**.

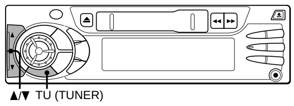
Displaying the clock

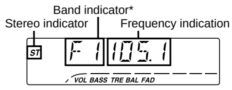
1 Press **DSPL**.
To return to the former display, press **DSPL** again.

RADIO OPERATION

Tuning in to a station

(Seek/Manual Tuning)





* "F" means FM.

1 Press **TU (TUNER)** repeatedly to select the desired band (F1, F2, F3, MW, or LW).
2* Press ▲ (to move to higher frequencies) or ▼ (to move to lower frequencies) to tune in to a station.
"ST" appears on the display when an FM station is broadcasting in stereo, and receiving conditions are good.

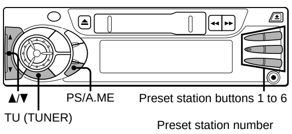
***Seek Tuning and Manual Tuning**
- Press and hold ▲ or ▼ until Seek Tuning starts.
The unit locates a station automatically (Seek Tuning).
- Press ▲ or ▼ repeatedly to search for a desired station while increasing or decreasing the frequency step by step (Manual Tuning).

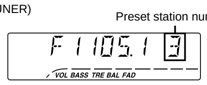
To stop Seek Tuning, press ▲ or ▼ again.

Monaural mode
When FM signals become weak, or FM reception becomes poor, the unit automatically switches to Monaural mode to reduce noise.

Using preset stations

You must preset stations before you can tune in to a station using preset station number buttons.





Presetting stations automatically

(Auto Memory)

1 Press **TU (TUNER)** repeatedly to select the desired band (F1, F2, F3, MW, or LW).
2 Press and hold **PS/A.ME** until automatic presetting starts.
The unit automatically stores up to 6 stations for each band.
After completion of automatic presetting, the unit tunes in to all the stations stored on the preset station buttons in order (Preset Scan).

To cancel automatic presetting, press **PS/A.ME** again.

Checking the preset stations (Preset Scan)
1 Press **PS/A.ME** briefly.
Each preset station will be tuned in for 5 seconds in order.
To cancel Preset Scan, press **PS/A.ME** again or any preset station button.

Presetting stations manually

(Manual Memory)

1 Press **TU (TUNER)** repeatedly to select the desired band (F1, F2, F3, MW, or LW).
2 Press ▲ or ▼ to tune in to a desired station (see "Tuning in to a station" as well for another tuning method).
3 Press and hold the desired preset station button until the unit beeps.

Note
A newly preset station replaces the station on the same band that was previously stored on that preset station button.

Tuning in to a preset station

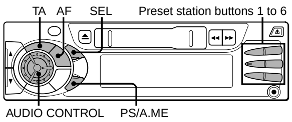
1 Press **TU (TUNER)** repeatedly to select the desired band (F1, F2, F3, MW, or LW).
2 Press the preset station button on which the desired station is stored.

Active tuning reception control (ATRC)
The unit automatically suppresses FM noise caused by vehicle movement, and maintains sound quality.

Radio data system (RDS) features

The following RDS features are available with this unit.

Important
- The RDS features are available only during FM reception.
- You may not be able to activate the RDS features fully in the areas where the station is test-broadcasting the RDS signals.



Tuning in to Alternative Frequency (AF) stations

There are programs transmitted at different frequencies in different areas. Along with the program itself, an RDS station sends the AF list data that contains the frequencies sending the same program. If the signal of the tuned-in frequency becomes weak while you are driving, the unit automatically searches the same program sent at another stronger frequency according to the AF list, so that you do not have to seek and tune in to the other frequency again.

1 Press **AF** during FM reception to activate AF function.
"AF" appears on the display.*
* "AF" flashes when the unit cannot receive AF list data.

Tuning in to an EON*, Traffic Program (TP)

The unit automatically switches to FM reception and tunes in to an EON, traffic announcement program when the program starts.
* EON: Enhanced Other Network

1 Press **TA** during FM reception to activate TP function.
"TP" appears on the display.*
During reception, "TA" appears on the display.
* "TP" flashes when the unit cannot receive TP data.
To turn off TP function, press **TA.**
"TP" disappears.

Setting the volume of TP reception
When TP function is activated, the traffic announcement program is tuned in at the volume set in the following procedure regardless of the volume of the other source at the time TP function is activated.

1 Press and hold **AF** until "BOOST 40" appears on the display.
"BOOST 40" disappears approx. 5 seconds later.
2 Turn **AUDIO CONTROL** to select a volume level (0 to 80 in increments of 5).
3 Press **SEL**.

Activating AF function and TP function at the same time
1 Press **AF**, and then press **TA**.
"AF" and "TP" appears on the display.

Notes
- During MW or LW reception, the unit will not automatically tune in to a traffic announcement program. Be sure to select "F1/2/3," "TAPE," or "AUX IN" to activate TP function.
- When the unit tunes in to a traffic announcement program by way of TP function, you can increase the volume, but cannot decrease it.
- When the traffic announcement program finishes, the unit automatically returns to the previous state.

Tuning in to a station by specifying a Program Type (PTY)

1 Press and hold **TA** until "PRO-TYPE" appears on the display.
"PRO-TYPE" disappears approx. 5 seconds later.
2 While "PRO-TYPE" is displayed, press one of the preset station buttons* for more than 0.5 seconds to select a Program Type.
The unit starts to search for a station of the selected Program Type and tunes in to the station.

* The Program Types are assigned to the preset station buttons as follows:

Preset station button	Program Type (default)
1	NEWS
2	SPORT
3	EDUCATE
4	SCIENCE
5	ROCK M
6	CLASSICS

Changing the Program Types assigned to preset station buttons

You can assign one of the following Program Types to each preset station button.

NEWS, AFFAIRS, INFO, SPORT, EDUCATE, DRAMA, CULTURE, SCIENCE, VARIED, POP M, ROCK M, EASY M, LIGHT M, CLASSICS, and OTHER M

1 Turn off the unit.
2 Press and hold **TA** until "PRO-TYPE" appears in the display.
3 While "PRO-TYPE" is displayed, turn **AUDIO CONTROL** to select the desired Program Type.
4 While the selected Program Type is displayed, press a desired preset station button for 2 or more seconds.

Adjusting the clock by Clock Time (CT) service

The unit adjusts the clock automatically according to the CT data sent from a currently tuned-in RDS station.

1 Press and hold **TA**, and then press **AF** during FM reception.
"CT" appears in the display.
2 Turn **AUDIO CONTROL** to select "CT ON."
"CT" appears in the display and the clock is adjusted.

To turn off CT function, select "CT OFF" in step 2.

Notes

• In the following cases, "CT" flashes and the clock will not be adjusted:
— The tuned-in signal is too weak to activate this function.
— The tuned-in station is not sending CT data.
• The clock may not always be correct even when CT function is on.

Tips and other information

Presetting Alternative Frequency (AF) stations automatically

Only the strongest frequencies among the AF stations that are broadcasting the same program are selected and assigned to each preset station button.

1 During FM reception, make sure that "AF" and/or "TP" appear(s) in the display (see "Tuning in to Alternative Frequency (AF) stations" and "Tuning in to an EON Traffic Program (TP)").
2 Press and hold **PS/A.ME** until Auto Memory for AF stations starts.

Displaying a Program Service (PS) name

You can check the name of currently tuned-in station in the display. When the unit is tuned in to an RDS station sending PS data, the station name appears in the display.

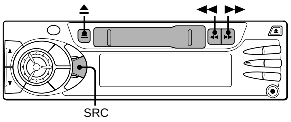
Note

In the following cases, the station name will not appear in the display:
— The tuned-in signal is too weak to activate this function.
— The tuned-in station is not sending PS data.

Notes on emergency broadcasts

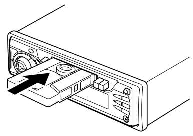
• The unit automatically switches to FM reception and tunes in to emergency broadcast when it starts. When the broadcast finishes, the unit automatically returns to the previous state.
• Be sure to turn on AF function and TP function to receive emergency broadcasts.
• During MW or LW reception, the unit will not tune in to the urgent broadcast.

TAPE PLAYBACK



Playing a tape

1 Insert a cassette to start playback.



If a cassette is already inserted, press **SRC** repeatedly to select Tape Play mode to start playback.
Playback starts in the direction that the unit played back previously.

Press the following buttons to operate tape transport.

To	Press
Eject a cassette*	⏏
Change the playback side	◀◀ and ▶▶ simultaneously
Fast-forward the upper side (▶) of the tape Rewind the lower side (◀) of the tape	▶▶
Rewind the upper side (▶) of the tape Fast-forward the lower side (◀) of the tape	◀◀
Stop fast transport and resume playback	◀◀ or ▶▶ lightly**

* When you eject the cassette, the unit switches to the previous mode.
** Do not press ◀◀ or ▶▶ all the way. Doing so may change the direction of tape transport.

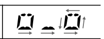
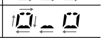
Auto Reverse function

When the end of the tape is reached during playback or fast tape transport, the direction of the tape is automatically reversed, and playback starts on the other side.

Direction indications

FWD	Displayed when the upper side of the cassette is being played.
REV	Displayed when the lower side of the cassette is being played.

Tape transport display

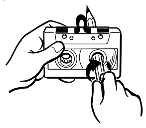
Upper side: During playback	
Lower side: During playback	

When you do not play back a tape

Be sure to eject any cassette.

To prevent tape problems

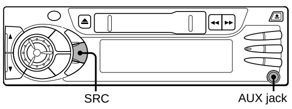
Before inserting a cassette into the unit, make sure that there is no slack in the tape. If necessary, take up the slack by inserting a pencil through the spindle hole and winding.
Tapes of 90 minutes or longer are extremely thin and easily deformed or damaged. They are not recommended.



AUXILIARY EQUIPMENT

Listening to a CD/MD/MP3 portable player or other equipment

You can listen to equipment connected to the unit. Refer to the operating instructions for the corresponding equipment for more detailed information.
Be sure to remove the inserted cassette to prevent possible damage to the unit before connecting the equipment.

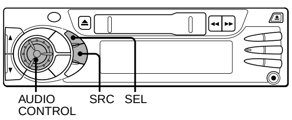


1 Connect a CD/MD/MP3 portable player or other equipment to the unit's AUX jack (3.5-mm dia.).
2 Press **SRC** repeatedly until "AUX IN" appears on the display.

Muting the sound while using the phone

When the telephone mute lead (light blue) of the unit is connected to a cellular phone hands-free car kit, etc., the unit mutes the sound from the speakers automatically during your conversation on the cellular phone.
For details, refer to the separate "INSTALLATION AND CONNECTIONS" for the unit and the instruction manual for the cellular phone hands-free car kit.

OTHER FUNCTIONS

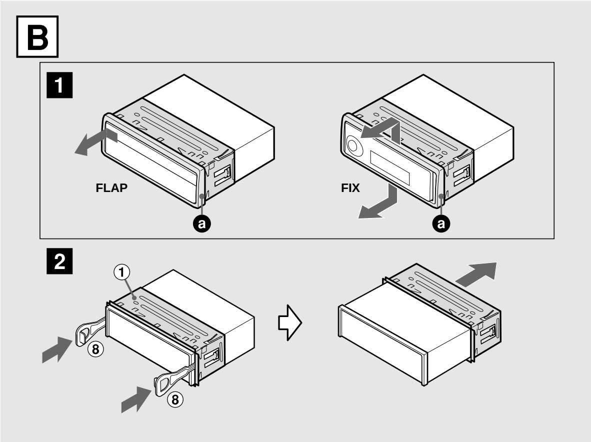


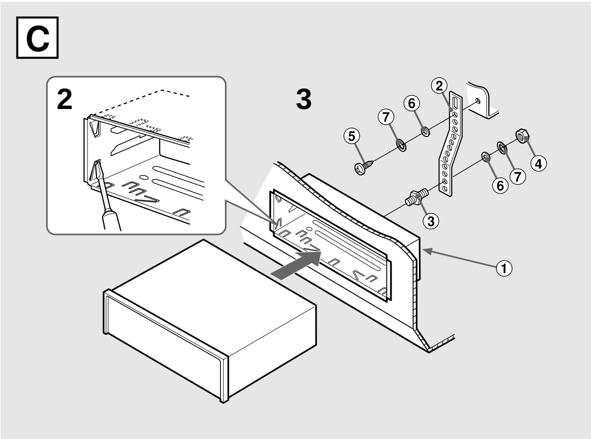
Changing the contrast of the display

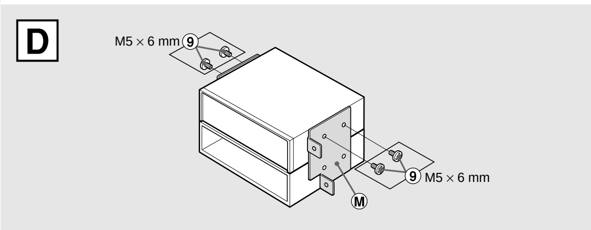
1 Press and hold **SRC** until "CONT." appears on the display.
2 Turn **AUDIO CONTROL** to select "L (for low)" or "H (for high)."

Setting the dimmer of the display

1 Press and hold **SEL** until "DIMMER" appears in the display.
2 Turn **AUDIO CONTROL** to select "0 (bright)" or "1 (dimmed)."







ENGLISH

SUPPLIED MOUNTING HARDWARE FOR INSTALLATION → [A]

INSTALLATIONS

The installation scenario described in this manual assumes that you have a typical car. If your specific car requires any adjustments or modifications, consult your nearest AIWA car audio dealer.

PRECAUTIONS

- This unit is designed for negative-ground, 12-V DC operation only.
- Before starting installation, make sure the ignition switch is set to OFF and disconnect the earth terminal of the car battery to avoid short-circuiting.
- Install the unit where it will not hamper the operation of the vehicle.
- Install the unit where it will not injure the passenger if there is a sudden stop, like an emergency stop.
- Avoid installing the unit where it would be subject to high temperatures caused by direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware, for a safe and secure installation.

PREINSTALLATIONS → [B]

If there is installation hardware for another receiver already in the dashboard, it must be removed.

Before installing the unit in the dashboard

Remove the trim plate from the unit → [1]

- **FLAP (flap panel)-type model** Remove the trim plate ⓐ by pushing the side of the plate in the direction of the arrow.
- **FIX (fixed panel)-type model** Remove the trim plate ⓐ by pushing the upper and lower parts of the plate in the direction of the arrow.
- As for the **DFP (Detachable Front Panel) -type model**, the trim plate is separately packed at the factory.

Remove the installation sleeve → [2]

Insert the levers ⑧ along each groove on both sides of the unit to unlock the installation sleeve ① and pull the sleeve to detach it from the unit.

BASIC INSTALLATIONS → [C]

Installation in the dashboard

Note that the Installation shown is a typical example. For some car types you may need to make adjustments or modifications to install the unit. If your car is of such type, consult your nearest AIWA car audio dealer.

Mounting-angle adjustment

The mounting angle should be 30 degrees or less from horizontal.

Caution on installation without using the sleeve → [D]

Be sure to use the supplied screws ⑨ shown in [A] to attach the mounting brackets Ⓜ (not supplied).

ESPAÑOL

ACCESORIOS DE MONTAJE SUMINISTRADOS PARA LA INSTALACION → [A]

INSTALACION

La instalación descrita a lo largo de este manual presupone que tiene un coche normal. Si su coche requiere ajustes o modificaciones, consulte con su concesionario de audio para coches de AIWA más cercano.

PRECAUCIONES

- Este aparato fue diseñado para una conexión a tierra negativa y funciona con una CC de 12 V.
- Antes de empezar la instalación, compruebe que el interruptor de encendido está en OFF y desconecte el terminal a tierra de la batería de coche para evitar un cortocircuito.
- Instale el aparato donde no moleste el funcionamiento del vehículo.
- Instale el aparato en un lugar donde no provoque heridas a los pasajeros por un frenado repentino, como en el caso de un frenado de emergencia.
- Evite instalar el aparato donde quede expuesto a altas temperaturas provocadas por los rayos directos del sol o el aire caliente de la calefacción o donde pueda estar expuesto al polvo, suciedad o vibraciones excesivas.
- Utilice sólo los accesorios de montaje suministrados, para una instalación firme y segura.

INSTALACION PREVIA → [B]

Si ya se han instalado accesorios para instalación de otro aparato en el tablero, deberá desmontarlos.

Antes de instalar el aparato en el cubretablero

Desmonte la placa de adorno del aparato → [1]

- **Modelo de tipo FLAP (panel de aleta)** Desmonte la placa de adorno ⓐ empujando el lado de la placa en el sentido de la flecha.
- **Modelo de tipo FIX (panel fijo)** Desmonte la placa de adorno ⓐ empujando las partes superior e inferior de la placa en el sentido de la flecha.
- Para el modelo de tipo **DFP (Panel frontal desmontable)**, la placa de adorno se empaqueta por separado en la fábrica.

Desmonte el manguito de instalación → [2]

Inserte las palancas ⑧ a lo largo de cada ranura en ambos lados del aparato para destrabar el manguito de instalación ① y tire del manguito para desmontarlo de la del aparato.

INSTALACION BASICA → [C]

Instalación en el tablero

Tenga en cuenta que la instalación que se describe es a modo de ejemplo. Para algunos modelos de coche, puede ser necesario hacer ajustes o modificaciones para instalar el aparato. Si su coche es de este tipo, consulte con su concesionario de audio para coches de AIWA más cercano.

Ajuste del ángulo de montaje

El ángulo de montaje debe ser de 30 grados o menos de la horizontal.

Precauciones sobre la instalación sin utilizar el manguito → [D]

Se deben utilizar siempre los tornillos suministrados ⑨ que aparecen en [A], para instalar las ménsulas de montaje Ⓜ (no suministradas).

FRANÇAIS

MATERIEL DE MONTAGE FOURNI POUR L'INSTALLATION → [A]

INSTALLATION

Le scénario d'installation indiqué dans ce manuel présuppose une voiture typique. Si votre voiture exige un ajustement ou une modification, consultez le revendeur de chaîne audio automobile AIWA le plus proche.

PRECAUTION

- Cet appareil est conçu uniquement pour le fonctionnement sur courant continu 12 V, masse négative.
- Avant de commencer l'installation, vérifiez que le commutateur d'allumage est réglé à OFF et déconnectez la prise de masse de la batterie auto pour éviter tout court-circuit.
- Installez l'appareil à un endroit où il ne gênera pas le fonctionnement de la voiture.
- Installez l'appareil à un endroit où il ne blessera pas le passager, en cas d'arrêt brutal, par exemple un arrêt d'urgence.
- Evitez d'installer l'appareil à un endroit en plein soleil ou sous l'air chaud du chauffage, où il sera soumis à des températures élevées, ou bien à un endroit où il sera soumis à une poussière, de la saleté ou de fortes vibrations.
- Utilisez seulement le matériel de montage fourni pour assurer une installation sûre et solide.

PREPARATIFS POUR L'INSTALLATION → [B]

S'il y a déjà du matériel de montage pour un autre récepteur dans le tableau de bord, il doit être retiré.

Avant d'installer l'appareil dans le tableau de bord

Retirez la plaque d'ajustement de l'appareil → [1]

- **Modèle de type FLAP (panneau basculant)** Retirez la plaque d'ajustement ⓐ en poussant le côté de la plaque dans le sens de la flèche.
- **Modèle de type FIX (panneau fixe)** Retirez la plaque d'ajustement ⓐ en poussant les parties haut et bas de la plaque dans le sens de la flèche.
- Comme pour le modèle de type **DFP (panneau avant amovible)**, la plaque d'ajustement est emballée séparément à l'usine.

Retirez le manchon d'installation → [2]

Insérez les leviers ⑧ le long de chaque cannelure sur les deux côtés de l'appareil pour débloquer le manchon d'installation ①, puis tirez sur le manchon pour le détacher de l'appareil.

INSTALLATION DE BASE → [C]

Installation dans le tableau de bord

Pour certains types de voiture, il faudra peut-être faire des ajustements ou modifications pour installer l'appareil. Si c'est le cas pour votre voiture, consultez le revendeur de chaînes audio automobiles AIWA le plus proche.

Ajustement de l'angle de montage

L'angle de montage doit être de 30° ou moins de l'horizontale.

Précaution pour l'installation sans manchon → [D]

Utilisez les vis fournies ⑨ indiquées dans [A] pour attacher les fixations de montage Ⓜ (non fournies).

DEUTSCH

MITGELIEFERTE BEFESTIGUNGSTEILE ZUR INSTALLATION → [A]

INSTALLATIONEN

Das in dieser Anleitung beschriebene Installationsszenarium bezieht sich auf ein typisches Fahrzeug. Falls Ihr Fahrzeug spezielle Einstellungen oder Modifikationen erfordert, fragen Sie bei Ihrem AIWA-Autoradio-Fachhändler nach.

ZUR BESONDEREN BEACHTUNG

- Dieses Gerät ist zum Betrieb mit einer 12-Volt-Fahrzeuganlage mit negativer Masse ausgelegt.
- Schalten Sie vor dem Einbau die Zündung aus und klemmen Sie das Massekabel der Autobatterie ab, damit kein Kurzschluß auftreten kann.
- Das Gerät immer so installieren, daß es nicht die Bedienung des Fahrzeugs behindert.
- Das Gerät so installieren, daß es nicht Insassen im Falle plötzlichen Bremsens, wie etwa bei einer Notbremsung, verletzen kann.
- Das Gerät nicht an Orten installieren, wo es hohen Temperaturen durch direktes Sonnenlicht oder Heißluft von der Heizung, Staub, Schmutz oder starken Vibrationen ausgesetzt ist.
- Zur sicheren und festen Installation die mitgelieferten Einbauteile verwenden.

INSTALLATIONSVORBEREITUNGEN → [B]

Wenn bereits Hardware für einen anderen Receiver im Armaturenbrett vorhanden ist, muß diese entfernt werden.

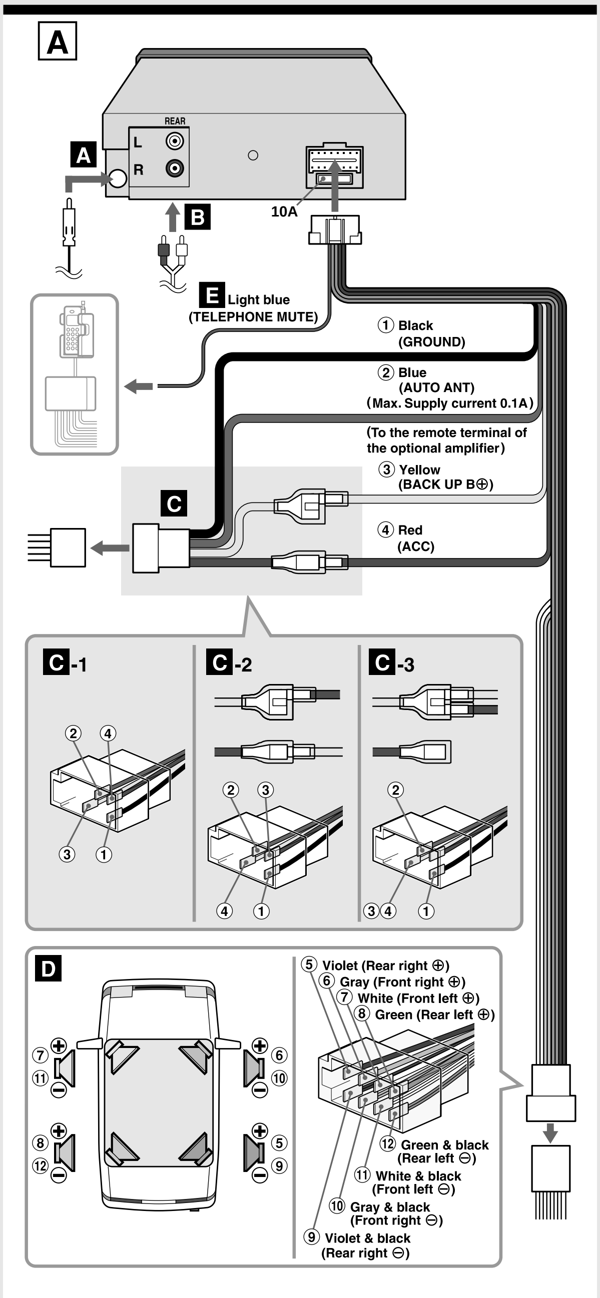
Vor dem Einbau des Geräts in das Armaturenbrett

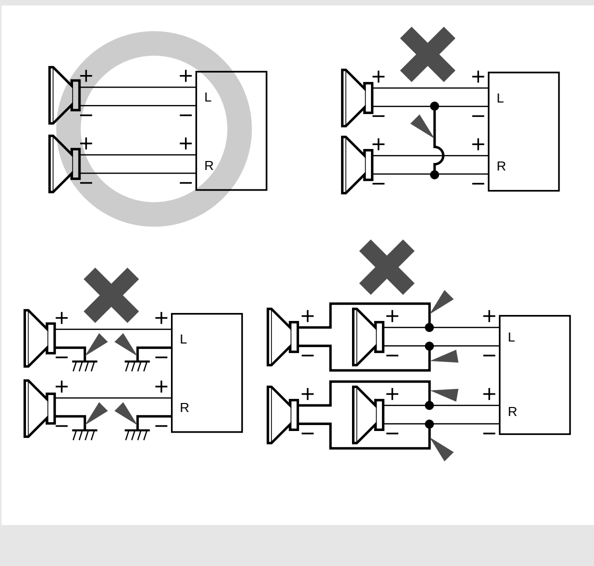
Nehmen Sie die Deckplatte vom Gerät ab → [1]

- **FLAP-Typ-Modell** Zum Abnehmen der Deckplatte ⓐ drücken Sie in Pfeilrichtung auf die Seitenkante der Platte.
- **FIX-Typ-Modell** Zum Abnehmen der Deckplatte ⓐ drücken Sie in Pfeilrichtung auf die Ober- und Unterkante der Platte.
- Beim **DFP-Typ-Modell**, Die Deckplatte wird werkseitig separat verpackt.

Die Installationsmuffe entfernen → [2]

Die Hebel ⑧ entlang jeder Rille an beiden Seiten des Geräts einsetzen, um die Installationsmuffe ① zu lösen und die Muffe vom Gerät abziehen.





ENGLISH

CONNECTIONS

PRECAUTIONS

Precaution on making connections

Before connecting, make sure that the ignition switch is set to OFF, and remove the earth terminal of the battery to protect the unit and your car from damage.

Caution
Make the connections correctly, as illustrated in the connection diagram.
Do not connect the negative ⊖ cord of each speaker wire to a common point. When replacing the fuse, be sure to use a fuse of the same rated amperage. Use of a fuse of a higher rating may cause serious damage to the unit.

CONNECTION DIAGRAM → A

A From the car antenna
B To the input jack of the optional power amplifier (for the rear channel)
C To the ISO connector of the vehicle (power supply)
Make sure the pin arrangement of the power-supply connector of your car conforms to that of the standard ISO connector C-1.
Some car types may have a different pin arrangement, C-2 or C-3. In that case, change the connections of the red and yellow leads as shown in C-2 or C-3.

Note
If your car is not prefitted with ISO standard connectors, you should use an adaptor available from your retailer or any good automotive accessory shop.

Colors of leads
① **Black** (ground lead to be connected to vehicle [metal] body.)
② **Blue** (power antenna lead to be connected to the terminal of the control relay switch for a vehicle equipped with a fully automatic power antenna. This lead is not used for a vehicle with a manual antenna or a switch-operated power antenna. If you will use the optional power amplifier with the unit, connect this lead to the remote terminal of the amplifier.)
(Max. supply current 0.1 A)
③ **Yellow** (battery lead to be connected to the backup terminal from which power is always supplied.)
④ **Red** (ACC lead to be connected to the terminal from which power is supplied when the ignition switch is set to ACC.)

D To the ISO connector of the vehicle (speaker connection)
Colors of leads
⑤/⑨ **Violet/Violet & Black**; Rear right ⊕/⊖
⑥/⑩ **Gray/Gray & Black**; Front right ⊕/⊖
⑦/⑪ **White/White & Black**; Front left ⊕/⊖
⑧/⑫ **Green/Green & Black**; Rear left ⊕/⊖

Notes
- Use speakers with an impedance of 4 to 8 ohms and with adequate power-handling capacities. Otherwise, the speakers may be damaged.
- Do NOT connect the speakers in parallel.
- Do NOT connect the terminals of the speaker system to the car chassis.

E To the radio mute lead of the cellular phone hands-free car kit, etc.
When the telephone mute lead (light blue) is connected to a cellular phone hands-free car kit, etc., the unit mutes the sound from the speakers automatically during your conversation on the cellular phone. For details, refer to the instruction manual for the cellular phone hand-free car kit.

Note
This telephone mute lead supports connection only to the radio mute line. When connected to another type of output system, it will not work.

ESPAÑOL

CONEXIONES

PRECAUCIONES

Precauciones al hacer las conexiones

Antes de conectar, confirme que el interruptor de encendido está en OFF y desmonte el terminal a tierra de la batería para proteger el aparato y su coche contra daños.

Precaución
Haga las conexiones correctamente, tal como se describe en el diagrama de conexiones.
No conecte el cable negativo ⊖ de cada cable de altavoz a un punto común. Cuando cambie el fusible, utilice siempre uno del mismo amperaje nominal. El uso de un fusible de mayor régimen puede provocar daños importantes en el aparato.

DIAGRAMA DE CONEXIONES → A

A De la antena del coche
B A la toma de entrada del amplificador de potencia opcional (para el canal trasero)
C Al conector ISO del vehículo (alimentación eléctrica)
Compruebe que la forma de patillas del conector de alimentación eléctrica de su coche es un conector que cumpla con la norma ISO C-1.
Algunos tipos de coche pueden tener otra forma de patillas diferente, C-2 o C-3. En este caso, cambie las conexiones de los cables rojo y amarillo como se indican en C-2 o C-3.

Nota
Si su coche no tiene conectores que cumplan la norma ISO, debe utilizar un adaptador de venta en su distribuidor o cualquier tienda de accesorios para automóviles completa.

Colores de los cables
① **Negro** (cable a tierra a conectar a la carrocería del vehículo [metal].)
② **Azul** (cable de antena motriz a conectar al terminal del interruptor del relé de control para un vehículo equipado con antena motriz totalmente automática. Este cable no se debe utilizar en un vehículo con antena manual o antena motriz que funcione mediante interruptor. Si utiliza el amplificador de potencia opcional en esta unidad. conecte este cable al terminal remoto del amplificador.)
(Corriente máxima 0,1 A)
③ **Amarillo** (cable de batería a conectar al terminal de reserva con un flujo permanente de electricidad.)
④ **Rojo** (cable ACC a conectar al terminal que recibe eléctrica cuando el interruptor de encendido está en ACC.)

D Al conector ISO del vehículo (conexión de altavoces)
Colores de los cables
⑤/⑨ **Violeta/Violeta y negro**; parte posterior derecha ⊕/⊖
⑥/⑩ **Gris/Gris y negro**; parte frontal derecha ⊕/⊖
⑦/⑪ **Blanco/Blanco y negro**; parte frontal izquierda ⊕/⊖
⑧/⑫ **Verde/Verde y negro**; parte posterior izquierda ⊕/⊖

Notas
- Utilice altavoces con una impedancia de 4 a 8 ohmios y con suficiente capacidad eléctrica. De lo contrario puede dañar los altavoces.
- NO conecte los altavoces en paralelo.
- NO conecte los terminales del sistema de altavoces al chasis del coche.

E Al conductor de silenciamiento de radio del kit de manos libres para el teléfono celular de coche, etc.
Cuando el cable de silenciamiento (marrón) para teléfono está conectado al kit de manos libres para teléfono celular de coche, etc., la unidad silencia automáticamente los altavoces durante su conversación en el teléfono celular. Para más detalles, consulte el anual de instrucciones del kit de manos libres para teléfono celular de coche.

Nota
Este cable de silenciamiento de teléfono sólo puede conectarse a la línea de silenciamiento de radio. No funcionará si lo conecta a otro tipo de sistema de salida.

FRANÇAIS

CONNEXIONS

PRECAUTIONS

Précautions pour les connexions

Avant le raccordement, vérifiez que la clé d'allumage est sur OFF, et débranchez la prise de terre de la batterie pour protéger l'appareil et votre voiture des dommages.

Attention
Effectuez les connexions correctement, comme indiqué sur le diagramme de connexion.
Ne raccordez pas le cordon négatif ⊖ de chaque fil de haut-parleur à un point commun. Au remplacement du fusible, utilisez un fusible à ampérage nominal identique. L'emploi d'un fusible à ampérage plus élevé peut sérieusement endommager l'appareil.

DIAGRAMME DE CONNEXION → A

A De l'antenne du véhicule
B A la prise d'entrée de l'amplificateur de puissance en option (pour le canal arrière)
C Au connecteur ISO du véhicule (alimentation)
Vérifiez que l'agencement des broches du connecteur d'alimentation du véhicule est conforme à celle du connecteur ISO standard C-1.
Certains types de voiture peuvent avoir un agencement de broches différent, C-2 ou C-3. Dans ce cas, modifiez les connexions des fils rouge et jaune comme indiqué en C-2 ou C-3.

Remarque
Si votre voiture n'est pas dotée d'un connecteur standard ISO, utilisez un adaptateur disponible chez votre revendeur ou dans tout bon magasin d'accessoires automobiles.

Couleurs des fils
① **Noir** (fil de mise à la terre à raccorder à la carrosserie [métal] du véhicule.)
② **Bleu** (fil d'antenne électrique à raccorder à la prise du commutateur de relais de commande pour un véhicule équipé d'une antenne électrique entièrement automatique. Ce fil n'est pas utilisé sur les véhicules à antenne manuelle ou antenne électrique opérée par commutateur. Si vous souhaitez utiliser l'amplificateur de puissance en option avec cet appareil, raccordez ce fil à la prise de télécommande de l'amplificateur.)
(Courant d'alimentation maxi. 0,1 A)
③ **Jaune** (fil de batterie à raccorder à la prise de secours de laquelle l'alimentation se fait toujours.)
④ **Rouge** (fil ACC à raccorder à la prise à partir de laquelle la puissance est fournie quand la clé d'allumage est réglée sur ACC.)

D Au connecteur ISO du véhicule (raccordement des enceintes)
Couleurs des fils
⑤/⑨ **Violet/Violet et Noir**; Arrière droite ⊕/⊖
⑥/⑩ **Gris/Gris et Noir**; Avant droite ⊕/⊖
⑦/⑪ **Blanc/Blanc et Noir**; Avant gauche ⊕/⊖
⑧/⑫ **Vert/Vert et Noir**; Arrière gauche ⊕/⊖

Remarques
- Utilisez des enceintes à impédance de 4 à 8 ohms et puissance nominale adéquate. Sinon elles seront endommagées.
- Ne raccordez PAS les enceintes en parallèle.
- Ne raccordez PAS les prises du système d'enceintes au châssis de la voiture.

E Au conducteur d'assourdissement radio du kit téléphone cellulaire auto mains libres
Quand le conducteur d'assourdissement radio (bleu ciel) est relié à un kit téléphone cellulaire auto mains libres, etc., l'appareil assourdit automatiquement le son des enceintes pendant la conversation au téléphone cellulaire. Pour les détails, consultez le mode d'emploi du kit téléphone cellulaire auto mains libres.

Remarque
Le fil d'assourdisseur pour téléphone automobile peut seulement être raccordé à la ligne d'assourdisseur radio. Il sera sans effet s'il est raccordé à un autre type de système de sortie.

DEUTSCH

ANSCHLÜSSE

VORSICHTSMASSREGELN

Vorsichtsmaßregel zur Herstellung von Anschlüssen

Vor dem Herstellen von Anschlüssen sicherstellen, daß der Zündschalter auf OFF steht und die Masseklemme der Batterie entfernen, um das Gerät und das Fahrzeug vor Schäden zu schützen.

Vorsicht
Die Verbindungen korrekt herstellen, wie im Anschlußdiagramm gezeigt.
Nicht die negative ⊖ Leitung jedes Lautsprecherkabels an einen gemeinsamen Punkt anschließen. Beim Austauschen der Sicherung immer eine Sicherung der gleichen Stärke verwenden. Verwendung einer höheren Sicherung kann zu schweren Schäden am Gerät führen.

ANSCHLUSSDIAGRAMM → A

A Von der Autoantenne
B Verstärkerendstufe (für hinteren Kanal)
C Zum ISO-Anschluß des Fahrzeug (Betriebsstromversorgung)
Stellen Sie sicher, daß die Pinanordnung der Betriebsstrombuchse des Fahrzeugs der Standard-ISO-Buchse C-1 entspricht.
Bestimmte Fahrzeugtypen können eine andere Pinanordnung haben, C-2 oder C-3. In diesem Fall ändern Sie die Verbindungen der roten und gelben Leitungen wie in C-2 oder C-3 gezeigt.

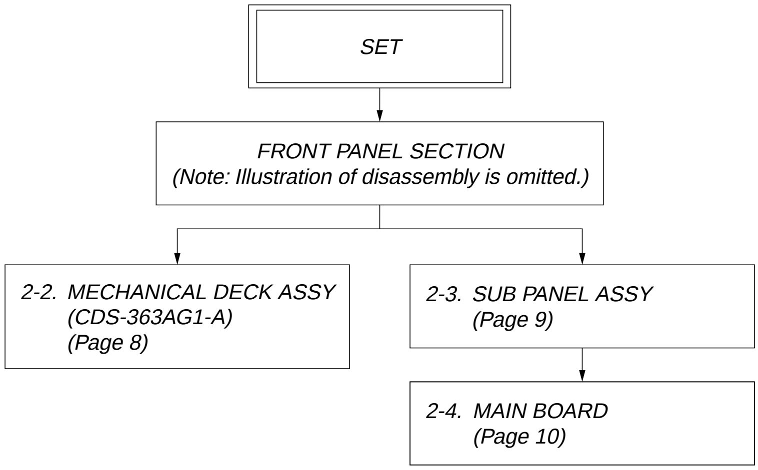
Hinweis
Wenn Ihr Fahrzeug nicht bereits mit ISO-Standardbuchsen ausgestattet ist, sollten Sie einen Adapter verwenden, der von Ihrem Fachhändler oder einem guten Automobilzubehörgeschäft erhältlich ist.

Leitungsfarben
① **Schwarz** (Masseleitung zum Anschluß an die Fahrzeugkarosserie [Metall].)
② **Blau** (Motorantennenleitung zum Anschluß an die Klemme des Relaisschalters für ein Fahrzeug, das mit vollautomatischer Motorantenne ausgestattet ist. Diese Leitung wird nicht für ein Fahrzeug mit manueller Antenne oder einer schalterbetriebenen Motorantenne verwendet. Wenn Sie die optionale Verstärkerendstufe mit dem Gerät verwenden wollen, diese Leitung an die Fernbedienungsklemme des Verstärker anschließen.)
(Max. Versorgungsstrom 0,1 A)

SECTION 2
DISASSEMBLY

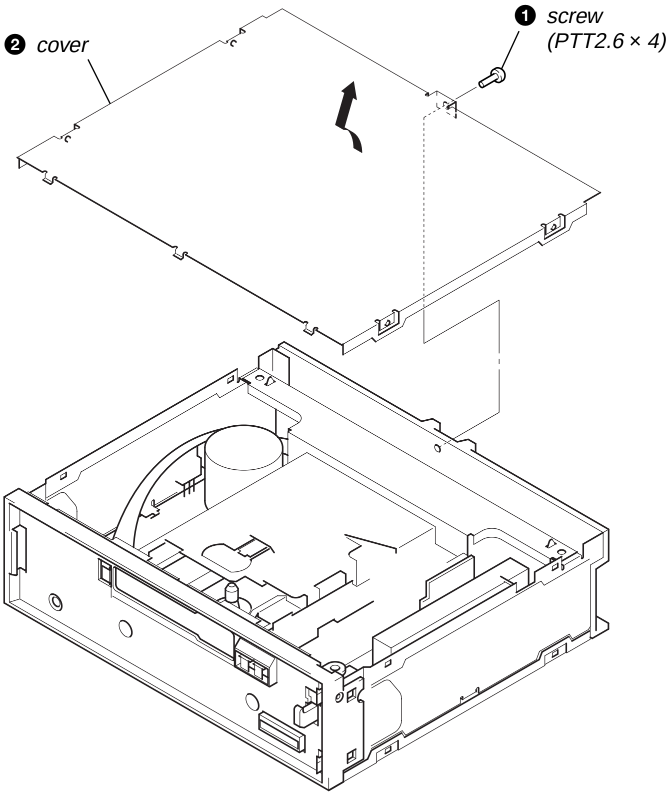
• This set can be disassembled in the order shown below.

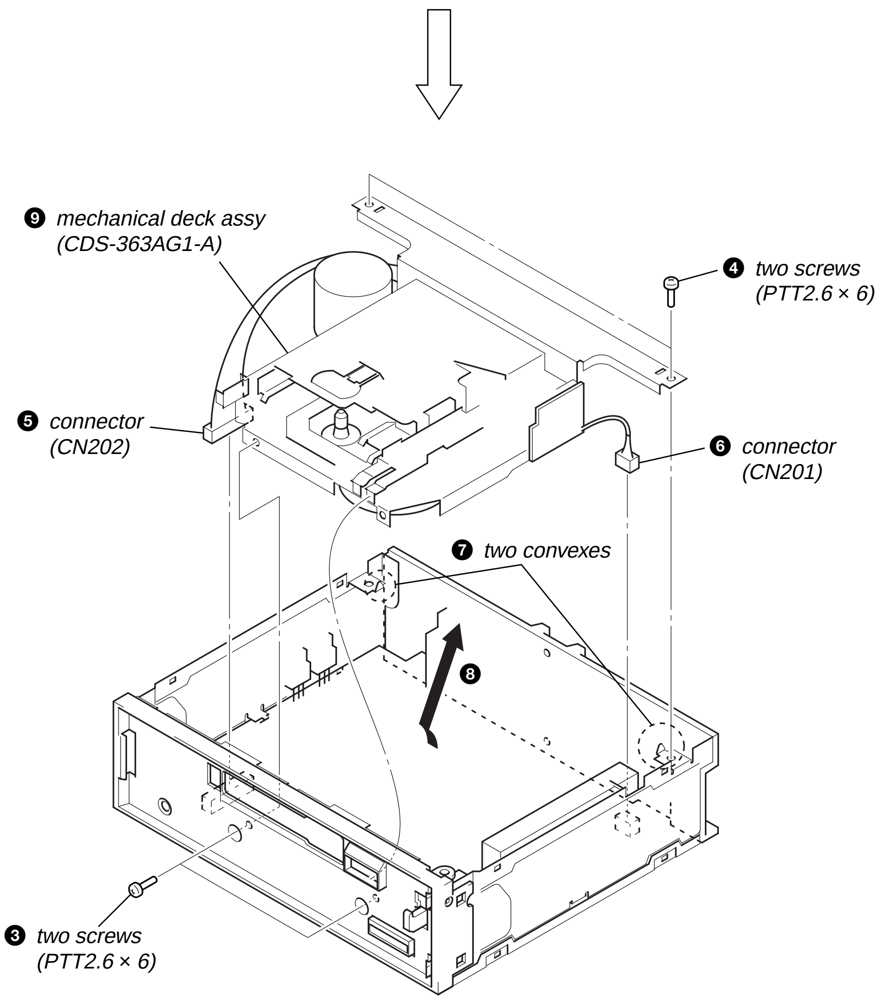
2-1. DISASSEMBLY FLOW



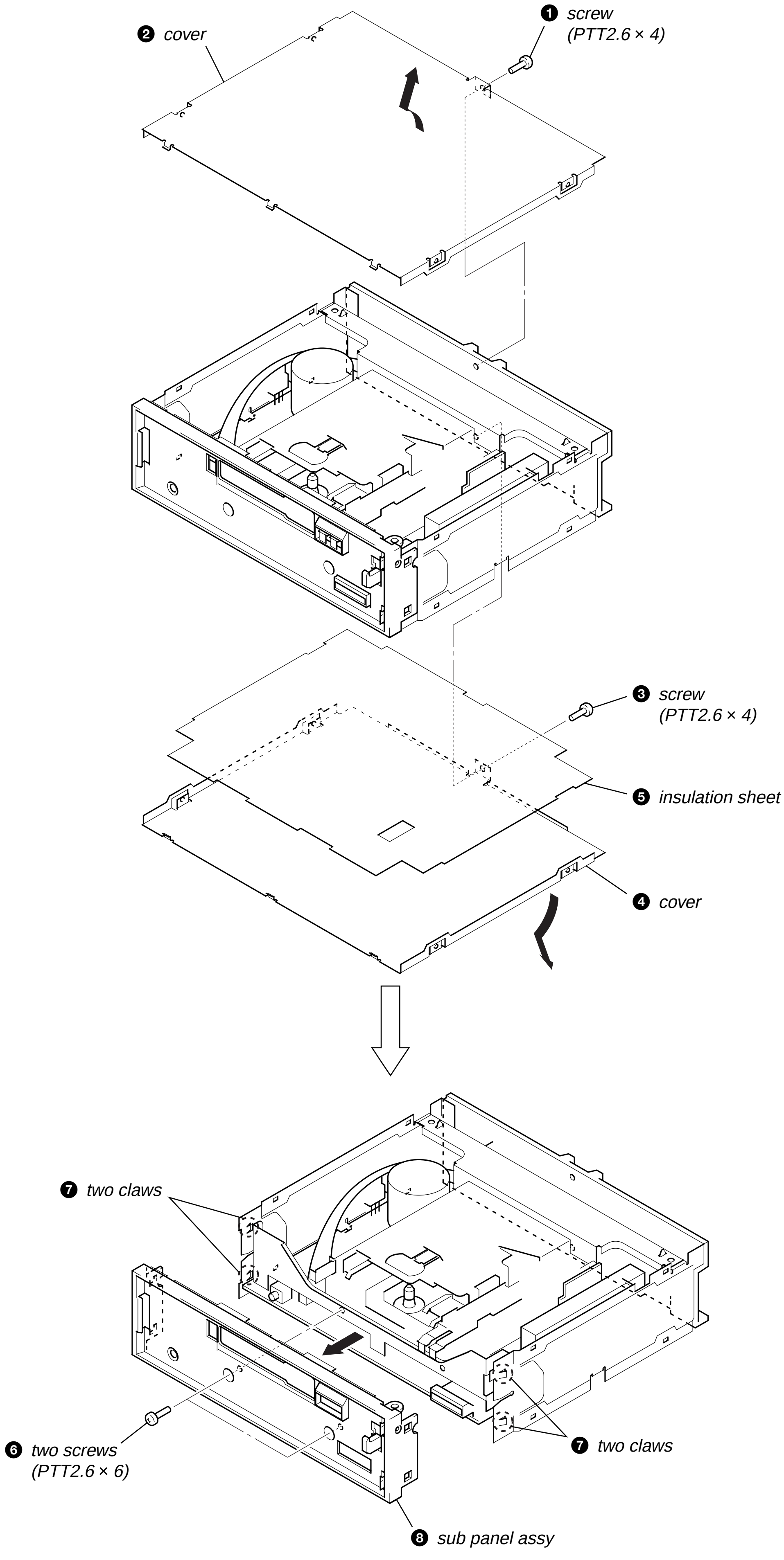
Note: Follow the disassembly procedure in the numerical order given.

2-2. MECHANICAL DECK ASSY (CDS-363AG1-A)

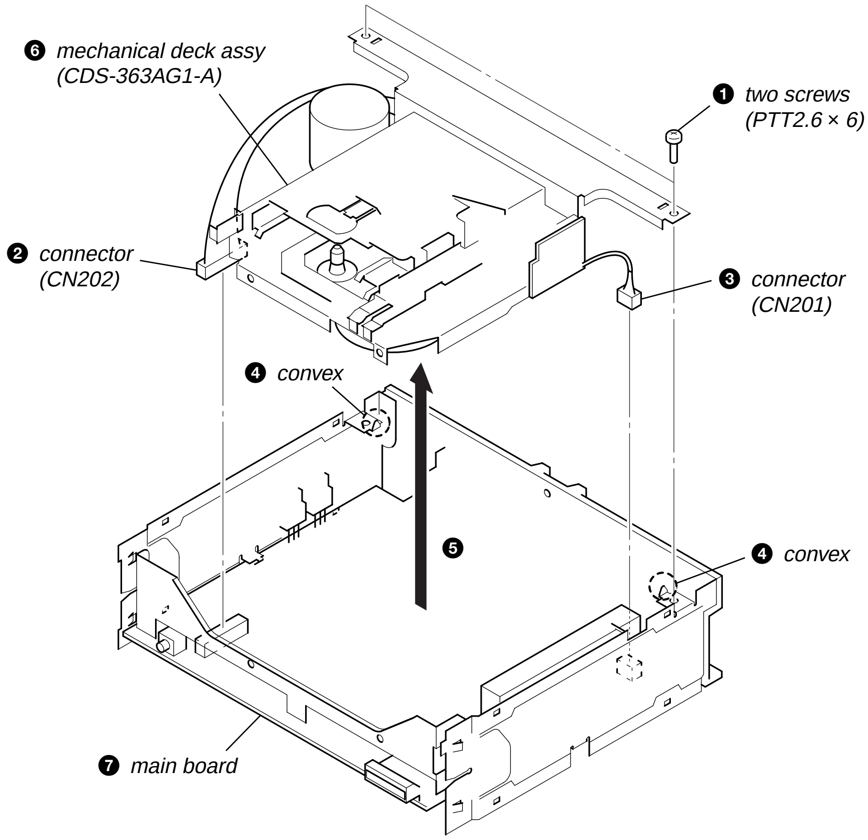




2-3. SUB PANEL ASSY



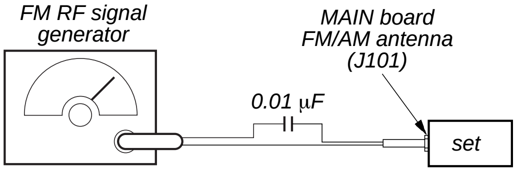
2-4. MAIN BOARD



SECTION 3
ELECTRICAL ADJUSTMENT

FM RDS S-METER ADJUSTMENT

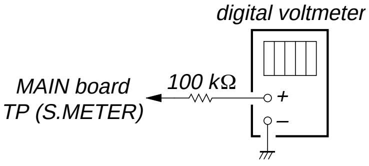
Setting:



Carrier frequency : 98.00 MHz
Output level : 31 dB (35.5 µV)
Mode : mono
Modulation : 1 kHz , 45 kHz deviation

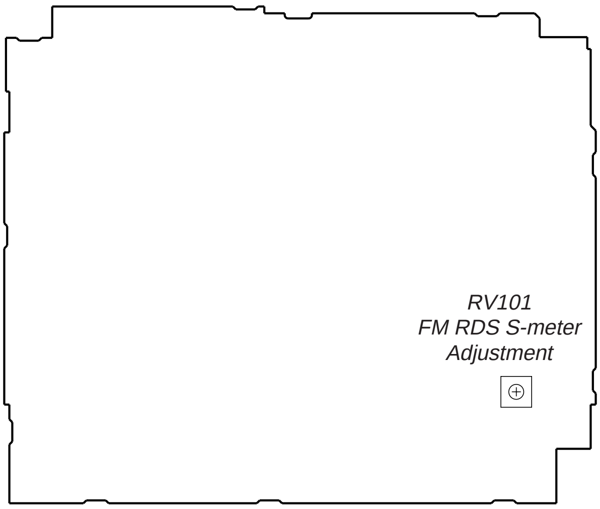
Procedure:

1. Press the TUNER TU button to set "FM".
2. Adjust RV101 on MAIN board so that the value of digital voltmeter becomes 2.0 ± 0.1V.

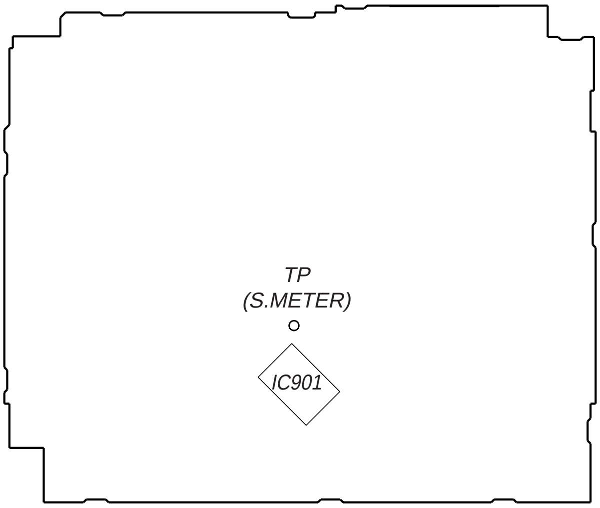


Adjustment Location:

– MAIN BOARD (Component Side) –



– MAIN BOARD (Conductor Side) –



SECTION 4
DIAGRAMS

4-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

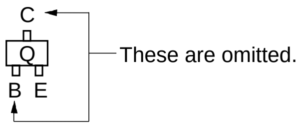
Note on Printed Wiring Board:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : indicates side identified with part number.
- : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

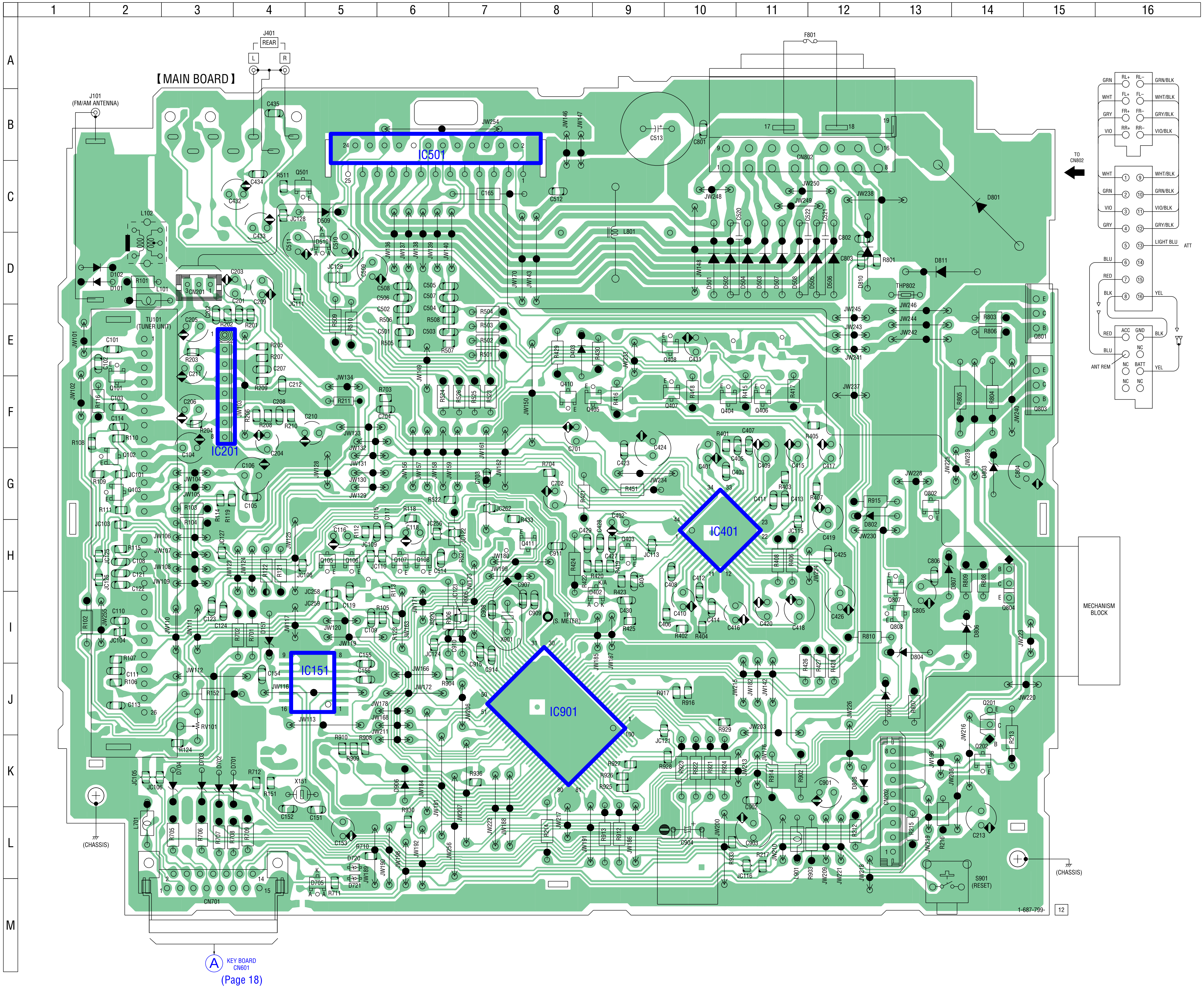
- Indication of transistor.



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $^{1}/_{4}$ W or less unless otherwise specified.
- : panel designation.
- : B+ Line.
- : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  [ ] : LW
  《 》 : TAPE PLAYBACK
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  : FM
  : AM (MW/LW)
  : TAPE PLAYBACK
  : AUX IN

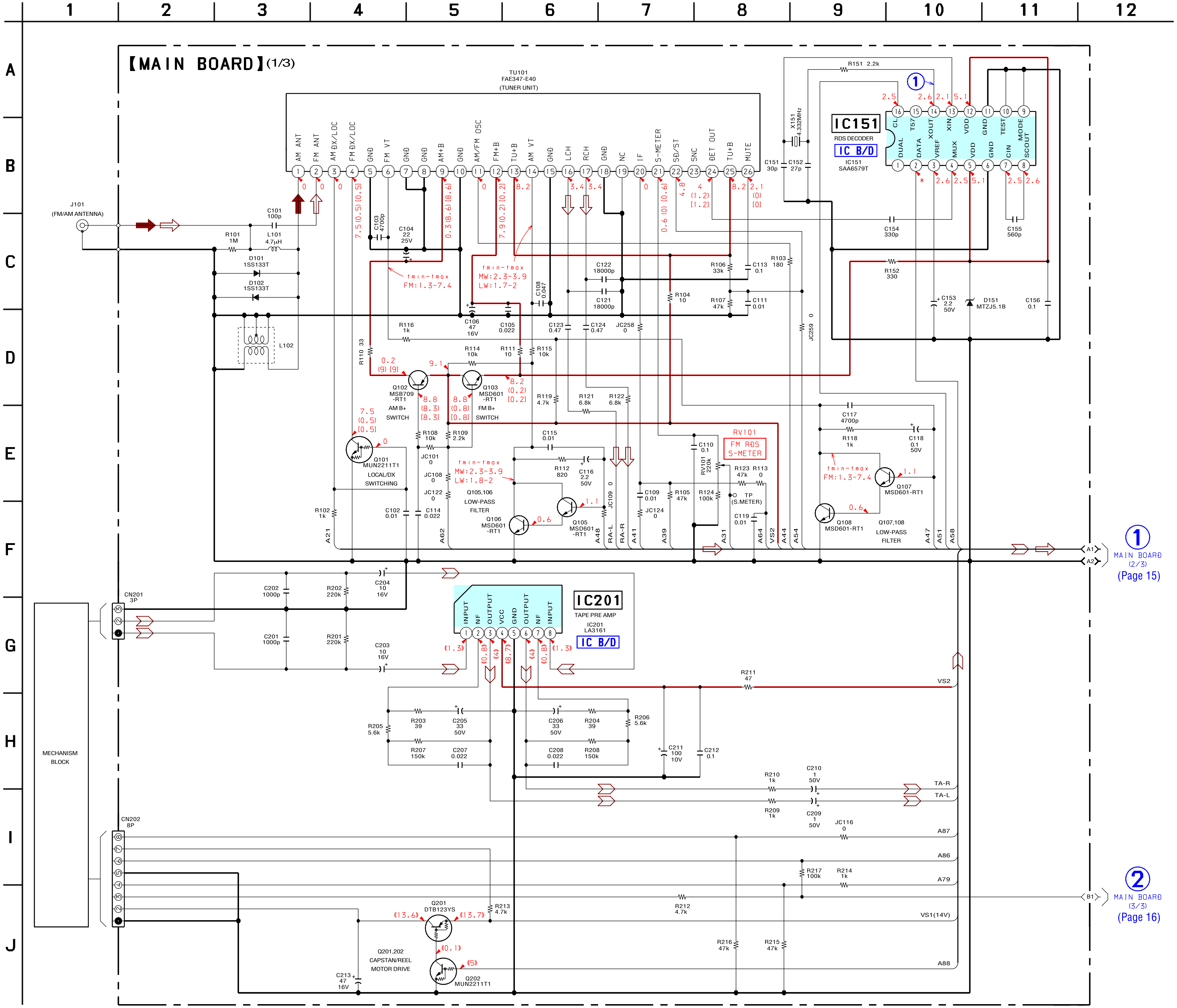
4-2. PRINTED WIRING BOARD – MAIN Board –



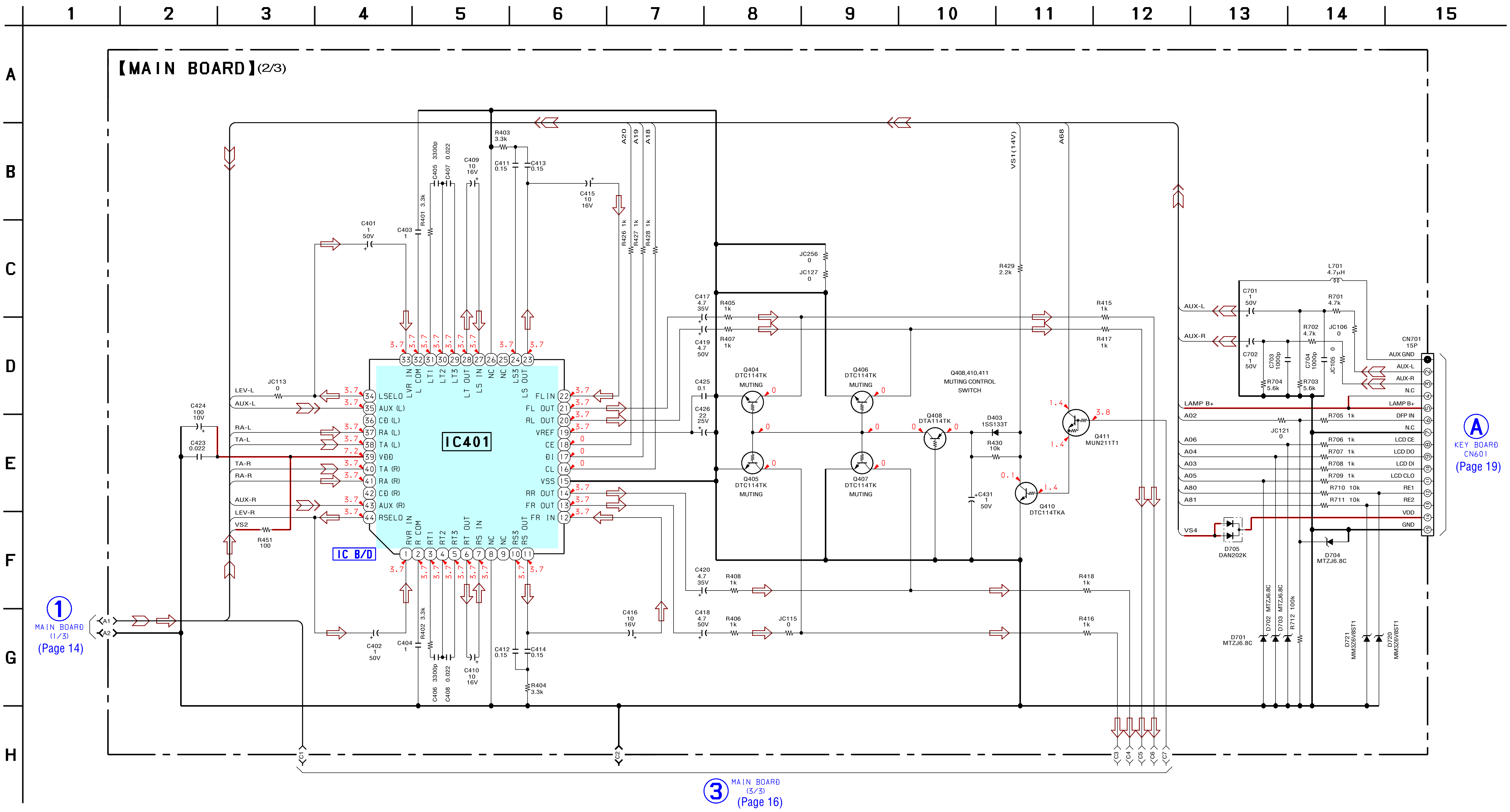
- **Semiconductor Location**

Ref. No.	Location
D101	D-2
D102	D-2
D151	I-4
D402	I-9
D403	E-8
D501	D-10
D502	D-10
D503	D-11
D504	D-11
D505	D-12
D506	D-12
D507	D-11
D508	D-11
D509	C-5
D510	D-5
D701	K-3
D702	K-3
D703	K-3
D704	K-3
D705	M-5
D720	L-5
D721	L-5
D801	C-14
D802	G-12
D803	G-14
D804	I-13
D806	I-14
D807	H-13
D808	K-12
D810	D-12
D811	D-13
D902	J-13
D906	K-6
IC151	J-5
IC201	F-3
IC401	H-10
IC501	B-6
IC901	J-8
Q101	F-2
Q102	G-2
Q103	G-2
Q105	H-5
Q106	H-5
Q107	H-6
Q108	H-6
Q201	J-14
Q202	K-14
Q403	H-9
Q404	F-10
Q405	F-9
Q406	F-11
Q407	F-10
Q408	E-10
Q410	F-8
Q411	H-8
Q501	C-4
Q801	E-15
Q802	G-13
Q803	F-15
Q804	H-14
Q807	H-13
Q808	I-13

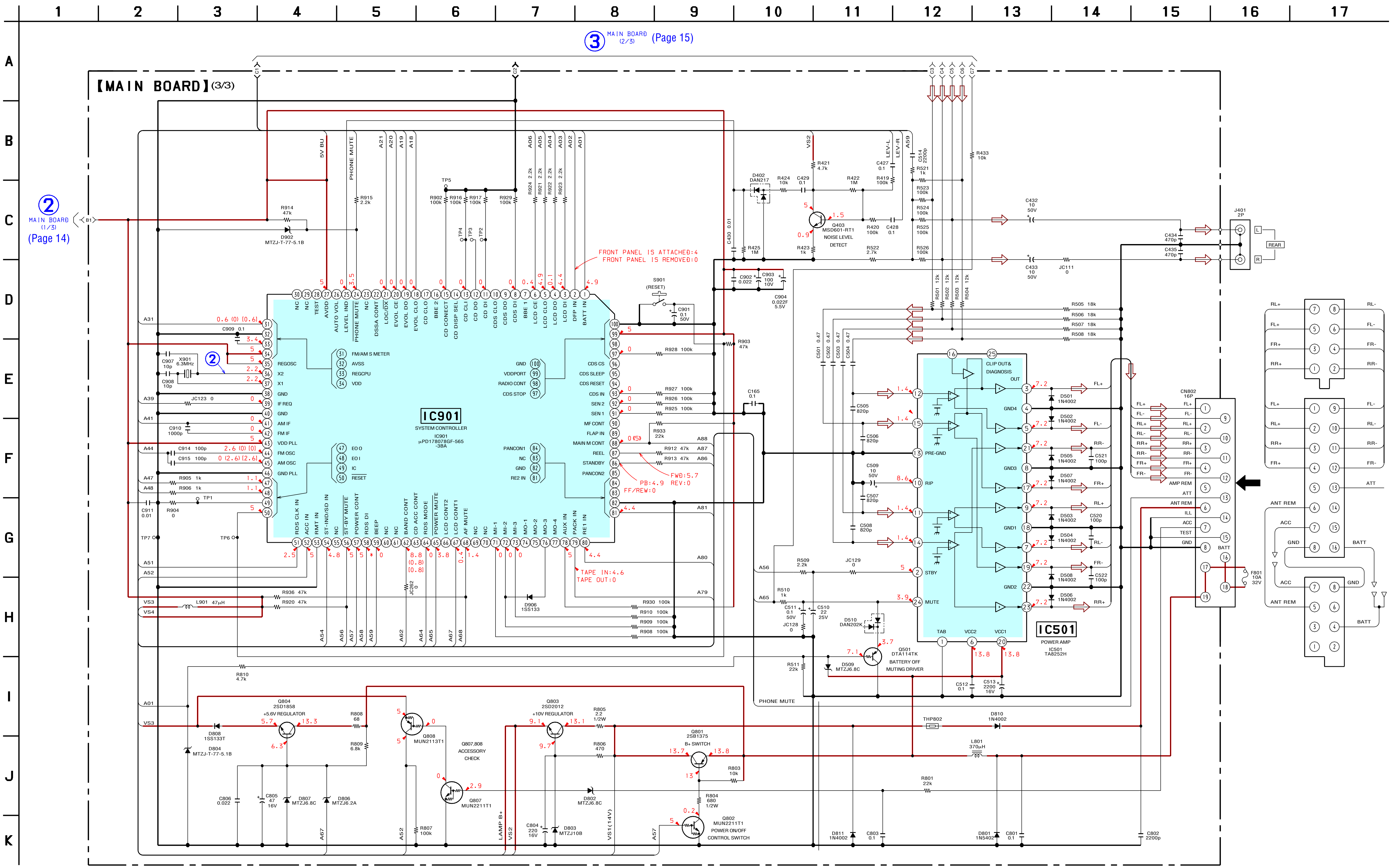
4-3. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 17 for waveform. • See page 17 for IC Block Diagrams.



4-4. SCHEMATIC DIAGRAM – MAIN Board (2/3) – • See page 17 for IC Block Diagram.

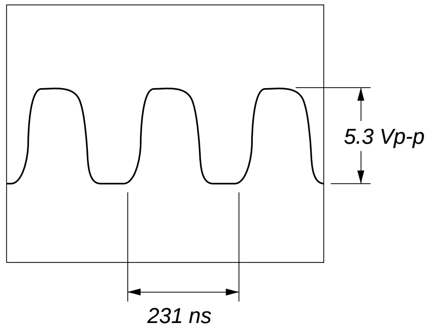


4-5. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 17 for Waveform.

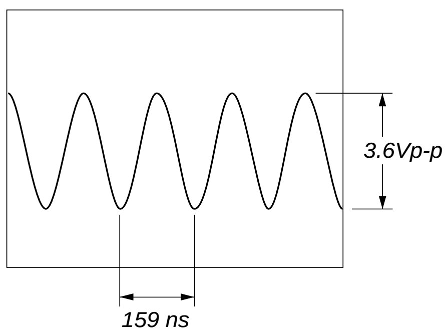


• **Waveforms**
– MAIN Board –

❶ IC151 ⑭ (XOUT)

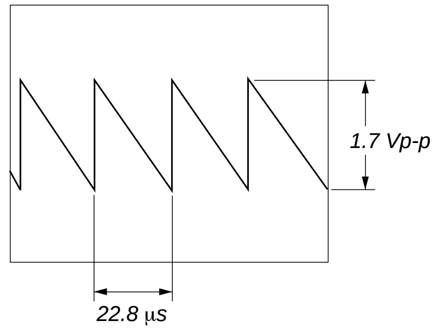


❷ IC901 ㊱ (X2)

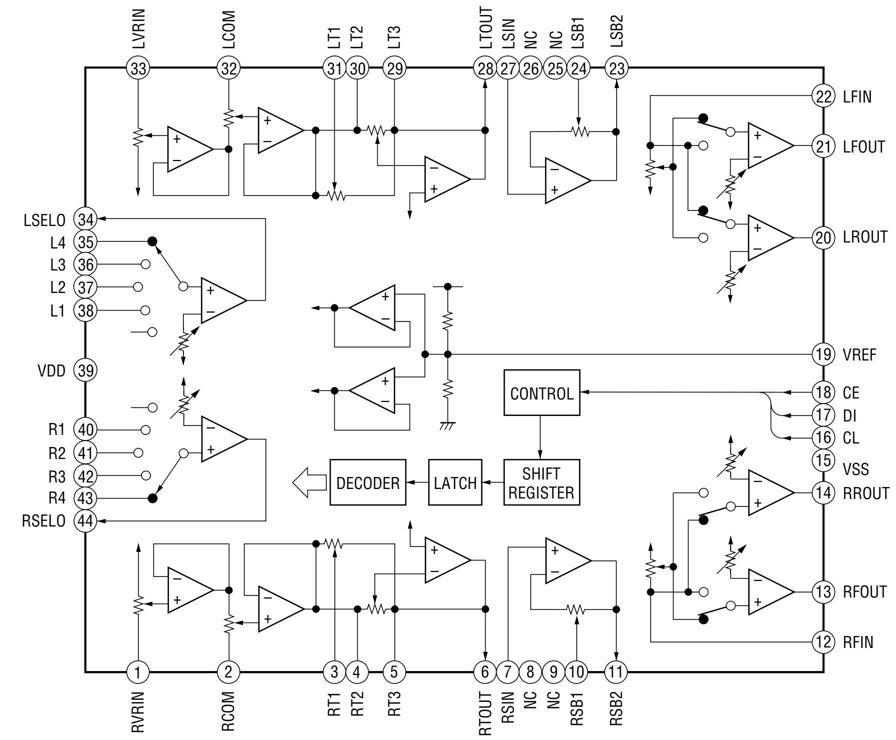


– KEY Board –

⓫ IC601 ⑳ (OSC)

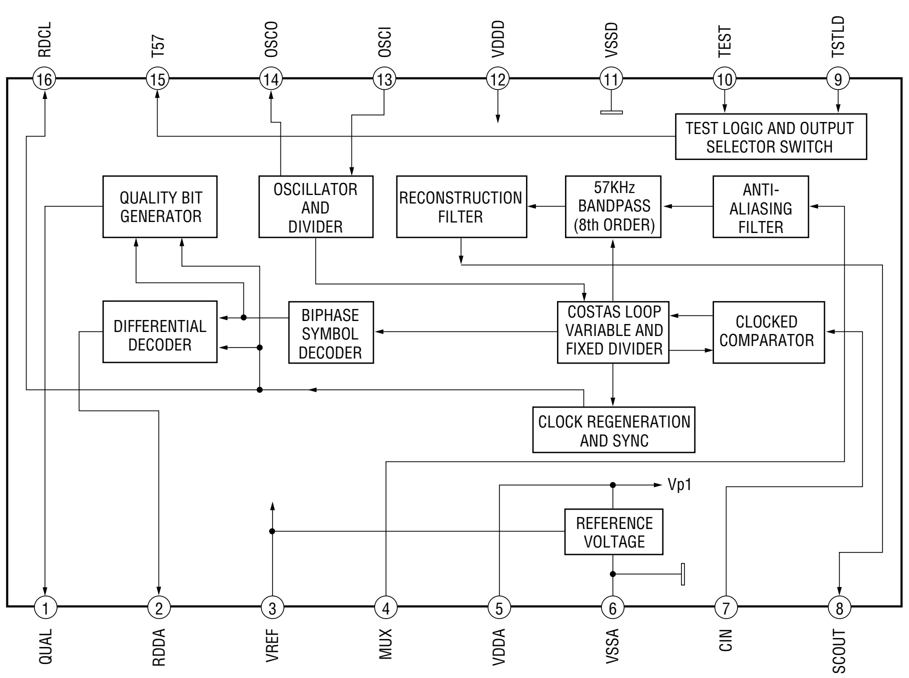


IC401 LC75374E

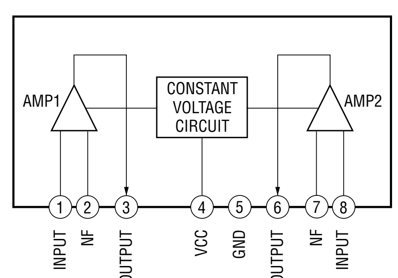


• **IC Block Diagrams**
– MAIN Board –

IC151 SAA6579T

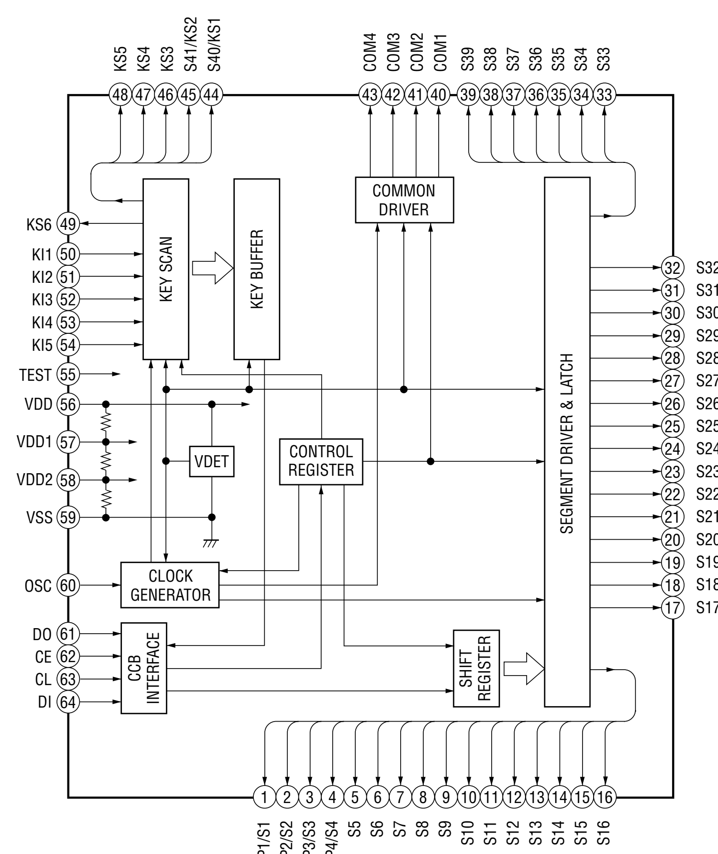


IC201 LA3161

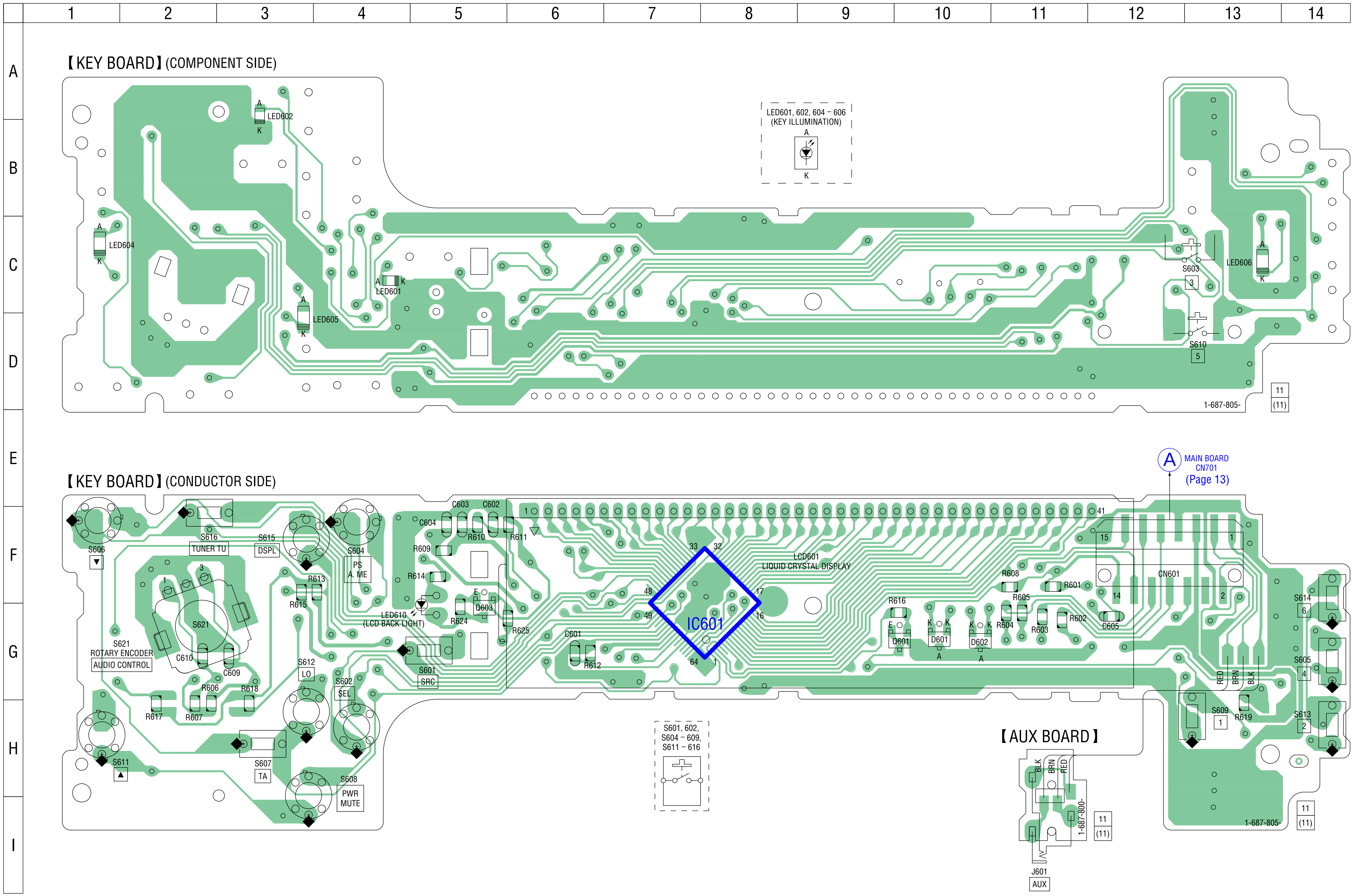


– KEY Board –

IC601 LC75854W



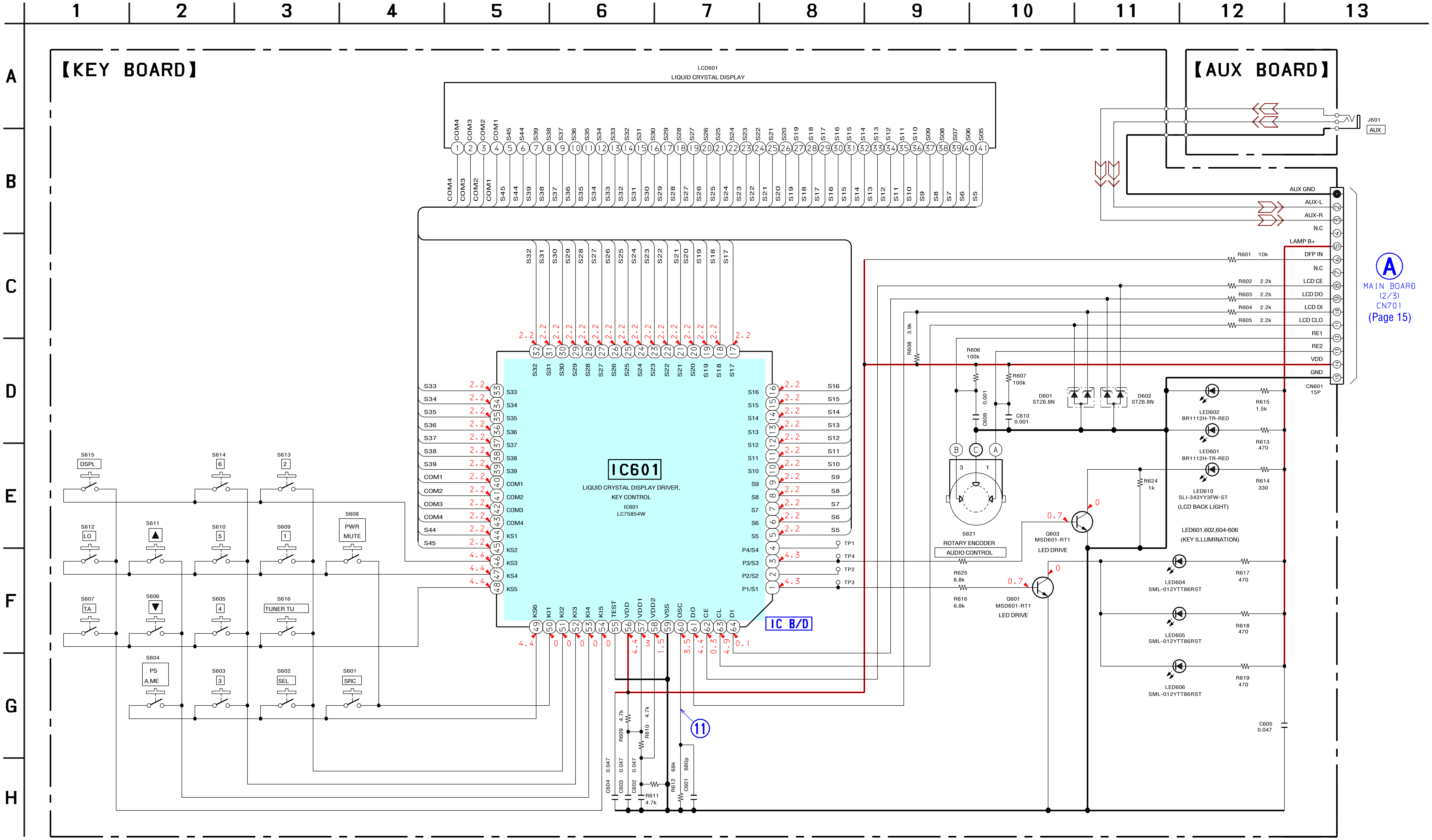
4-6. PRINTED WIRING BOARDS – KEY/AUX Boards –



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D601	G-10	LED604	C-1
D602	G-11	LED605	D-3
		LED606	C-13
IC601	F-8	LED610	G-5
LED601	C-4	Q601	G-10
LED602	A-3	Q603	G-5

4-7. SCHEMATIC DIAGRAM – KEY/AUX Boards – • See page 17 for Waveform • See page 17 for IC Block Diagram.



4-8. IC PIN FUNCTION DESCRIPTION

• **MAIN BOARD IC901 μPD178076GF-565-3BA (SYSTEM CONTROLLER)**

Pin No.	Pin Name	I/O	Description
1	BATT IN	I	Battery voltage detection signal input terminal
2	DFP IN	I	Front panel block remove/attach detection signal input terminal "H": front panel is attached
3	LCD DI	I	Serial data input from the liquid crystal display driver
4	LCD DO	O	Serial data output to the liquid crystal display driver
5	LCD CLO	O	Serial data transfer clock signal output to the liquid crystal display driver
6	LCD CE	O	Chip enable signal output to the liquid crystal display driver
7	BBE 1	—	Not used
8	CDS DI	I	Not used
9	CDS DO	O	Not used
10	CDS CLO	O	Not used
11	CD DI	I	Not used
12	CD DO	O	Not used
13	CD CLI	I	Not used
14	CD DISP SEL	—	Not used
15	CD CONNECT	—	Not used
16	BBE 2	—	Not used
17	CD CLO	O	Not used
18	EVOL CLO	O	Serial data transfer clock signal output to the electrical volume
19	EVOL DO	O	Serial data output to the electrical volume
20	EVOL CE	O	Chip enable signal output to the electrical volume
21	LOC/DX	O	Local/DX selection signal output to the tuner unit "L": DX, "H": local
22	DSSA CONT	—	Not used
23	NC	—	Not used
24	PHONE MUTE	I	Telephone muting detection signal input terminal At input of "L", the audio signal is attenuated by –20 dB
25	LEVEL IND	I	Noise level detection signal input terminal
26	AUTO VOL	—	Not used
27	AVDD	—	Power supply terminal (+5V)
28	TEST	—	Not used
29, 30	NC	—	Not used
31	FM/AM S METER	I	FM and AM signal-meter voltage detection signal input from the tuner unit
32	AVSS	—	Ground terminal
33	REGCPU	O	Voltage regulator output terminal for the CPU
34	VDD	—	Power supply terminal (+5V)
35	REGOSC	O	Voltage regulator output terminal for the oscillator circuit
36	X2	O	System clock output terminal (6.3 MHz)
37	X1	I	System clock input terminal (6.3 MHz)
38	GND	—	Ground terminal
39	IF REQ	O	Intermediate frequency request signal output to the tuner unit
40	GND	—	Ground terminal
41	AM IF	I	AM intermediate frequency detection signal input from the tuner unit
42	FM IF	I	FM intermediate frequency detection signal input from the tuner unit
43	VDD PLL	—	Power supply terminal (+5V)
44	FM OSC	I	FM VCO input from the tuner unit
45	AM OSC	I	AM VCO input from the tuner unit
46	GND PLL	—	Ground terminal
47	EO O	O	PLL phase compartor output to the tuner unit
48	EO I	O	PLL phase compartor output to the tuner unit
49	IC	—	Connected to the ground
50	RESET	I	System reset signal input from the reset switch "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
51	RDS CLK IN	I	RDS serial data transfer clock signal input from the RDS decoder
52	ACC IN	I	Accessory power detection signal input terminal "H": accessory power on
53	RMT IN	I	Not used
54	ST-IND/SD IN	I	FM stereo detection signal and station detector detection signal input from the tuner unit
55	NC	—	Not used
56	ST-BY MUTE	O	Standby on/off control signal output to the power amplifier "L": standby mode, "H": amplifier on
57	POWER CONT	O	Power on/off control signal output terminal "H": power on
58	RDS DI	I	RDS serial data input from the RDS decoder
59	BEEP	O	Beep sound drive signal output to the power amplifier
60, 61	NC	—	Not used
62	BAND CONT	O	FM/AM (MW/LW) band selection signal output terminal "L": AM (MW/LW), "H": FM
63	CD ACC CONT	O	Not used
64	RDS MODE	O	RDS mode select signal output to the tuner unit "H": RDS mode
65	POWER MUTE	O	Muting on/off control signal output to the power amplifier "L": muting on
66	LCD CONT2	O	Power on/off control signal output for liquid crystal display driver "H": power on Not used
67	LCD CONT1	O	Power on/off control signal output for liquid crystal display driver "H": power on
68	AF MUTE	O	Audio muting on/off control signal output terminal "H": muting on
69, 70	NC	—	Not used
71	MI-1	I	Diode matrix input terminal for initial setting Not used
72	MI-2	I	Diode matrix input terminal for initial setting
73	MI-3	I	Diode matrix input terminal for initial setting Not used
74, 75	MO-1, MO-2	O	Diode matrix output terminal for initial setting Not used
76	MO-3	O	Diode matrix output terminal for initial setting
77	MO-4	O	Diode matrix output terminal for initial setting Not used
78	AUX IN	I	Not used
79	PACK IN	I	Tape in detection switch input terminal "H": tape in
80	RE1 IN	I	Jog dial pulse input from the rotary encoder
81	RE2 IN	I	Jog dial pulse input from the rotary encoder
82	GND	—	Ground terminal
83	NC	—	Not used
84, 85	PANCON1, PANCON2	—	Not used
86	STANDBY	I	FF/REW detection switch input terminal "L": FF/REW mode, "H": playback mode
87	REEL	I	Tape direction switch input terminal "L": reverse direction, "H": forward direction
88	MAIN M CONT	O	Capstan/reel motor drive signal output terminal "H": motor on
89	FLAP IN	I	Not used
90	MF CONT	—	Not used
91, 92	SEN 1, SEN 2	—	Not used
93	CDS IN	I	Not used
94	CDS RESET	—	Not used
95	CDS SLEEP	—	Not used

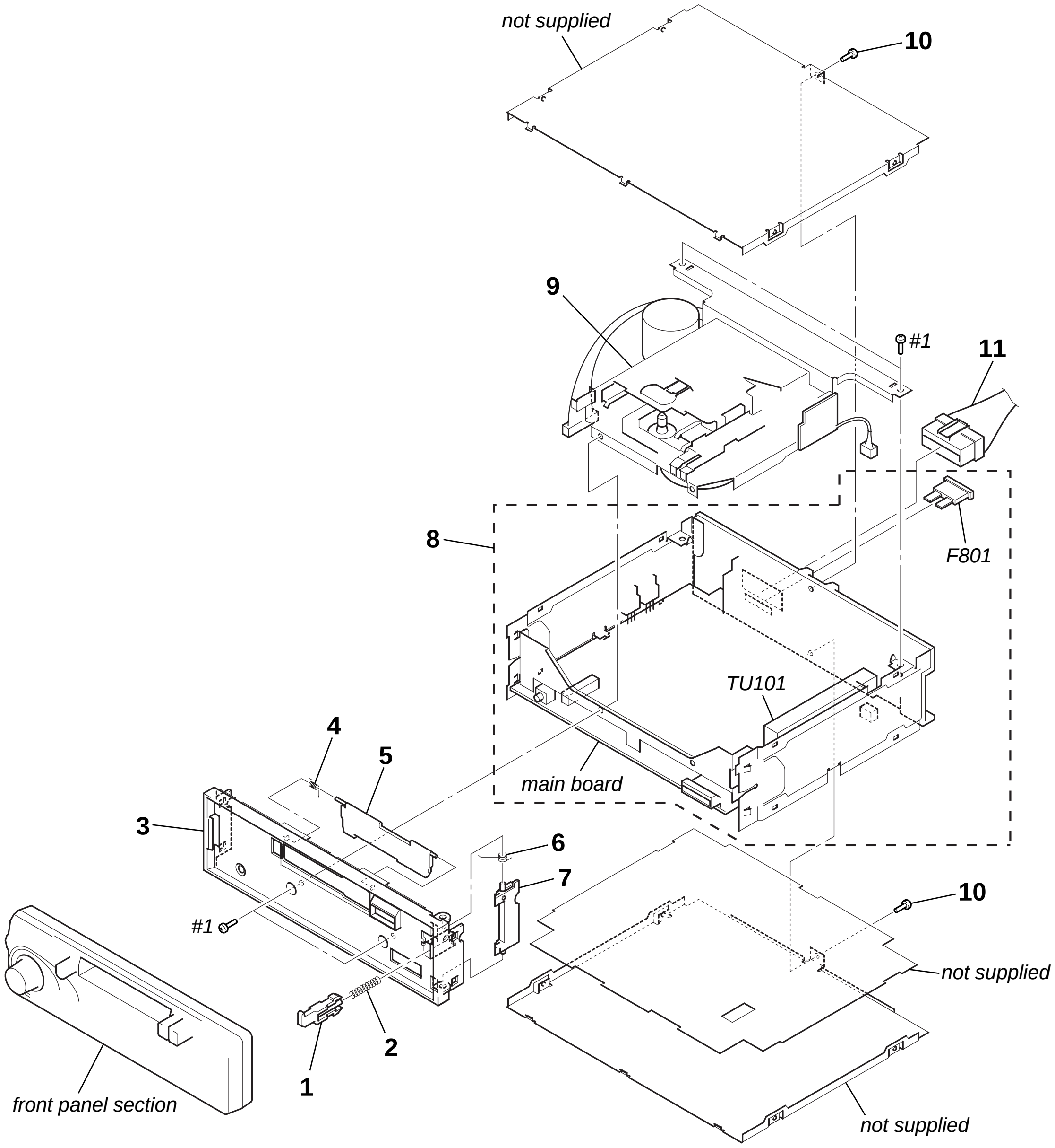
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Pin No.	Pin Name	I/O	Description
96	CDS CS	—	Not used
97	CDS STOP	—	Not used
98	RADIO CONT	—	Not used
99	VDDPORT	—	Power supply terminal (+5V)
100	GND	—	Ground terminal

SECTION 5
EXPLODED VIEWS

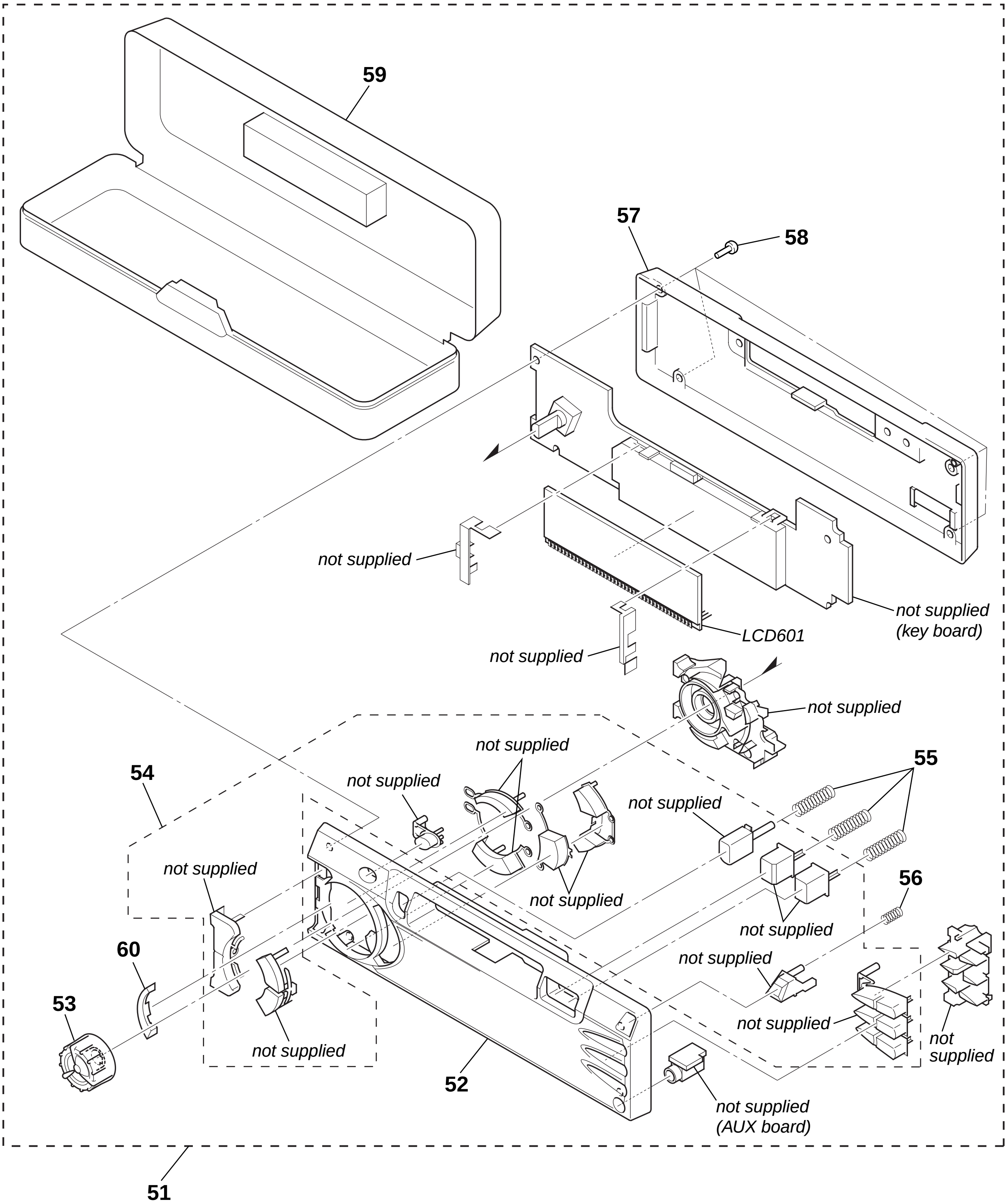
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories are given in the last of the electrical parts list.

5-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	3-250-284-01	LEVER, PUSH	
2	3-250-524-01	SPRING, PUSH	
3	3-250-279-01	PANEL, SUB	
4	3-250-572-01	SPRING, DOOR	
5	3-250-280-01	DOOR, CASSETTE	
6	3-251-089-01	SPRING, LOCK	
7	3-250-286-01	LEVER, LOCK	
8	A-3274-707-A	MAIN BOARD, COMPLETE	
9	A-3337-313-A	MECHANICAL DECK ASSY (CDS-363AG1-A)	
10	3-250-551-01	SCREW (+PTP, 2.6X4)	
11	1-776-527-82	CORD (WITH CONNECTOR) (ISO) (POWER)	
F801	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A/32V)	
TU101	1-693-611-11	TUNER UNIT (FAE347-E40)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	

5-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	A-3337-350-A	PANEL COMPLETE ASSY, FRONT	
52	X-3383-571-1	PANEL ASSY (SVX), FRONT	
53	X-3383-583-1	KNOB (VOL) ASSY (SVX)	
54	X-3383-570-1	BUTTON KIT (SVX) ASSY	
55	3-250-199-01	SPRING (EJ/FF/REW)	
56	3-251-090-01	SPRING (DETACH-C2)	
57	3-250-209-01	PANEL, FRONT BACK	
58	3-250-543-01	SCREW (+PTP, 2X8)	
59	X-3383-157-1	CASE ASSY	
60	3-250-619-01	RING (L)	
LCD601	1-805-164-11	DISPLAY PANEL, LIQUID CRYSTAL	

AUX KEY

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
		AUX BOARD			
		**********			
		< JACK >			
J601	1-817-308-11	JACK (AUX)			
***					
		KEY BOARD			
		**********			
		< CAPACITOR >			
C601	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C602	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C603	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C604	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C605	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C609	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C610	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN601	1-817-332-11	PLUG, CONNECTOR 15P			
		< DIODE >			
D601	8-719-067-40	DIODE STZ6.8N-T146			
D602	8-719-067-40	DIODE STZ6.8N-T146			
		< IC >			
IC601	6-703-685-01	IC LC75854W			
		< LIQUID CRYSTAL DISPLAY >			
LCD601	1-805-164-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED601	8-719-075-89	LED BR1112H-730-TR (KEY ILLUMINATION)			
LED602	8-719-075-89	LED BR1112H-730-TR (KEY ILLUMINATION)			
LED604	6-500-662-01	LED SML-012YTT86RST (KEY ILLUMINATION)			
LED605	6-500-662-01	LED SML-012YTT86RST (KEY ILLUMINATION)			
LED606	6-500-662-01	LED SML-012YTT86RST (KEY ILLUMINATION)			
LED610	6-500-165-11	LED SLI-343YY3FW-ST (LCD BACK LIGHT)			
		< TRANSISTOR >			
Q601	8-729-010-25	TRANSISTOR	MSD601-RT1		
Q603	8-729-010-25	TRANSISTOR	MSD601-RT1		
		< RESISTOR >			
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W
R602	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R603	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R604	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R605	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R606	1-216-845-11	METAL CHIP	100K	5%	1/10W
R607	1-216-845-11	METAL CHIP	100K	5%	1/10W
R608	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R609	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R610	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R611	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R612	1-216-843-11	METAL CHIP	68K	5%	1/10W
R613	1-216-817-11	METAL CHIP	470	5%	1/10W
R614	1-216-815-11	METAL CHIP	330	5%	1/10W
R615	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R616	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R617	1-216-817-11	METAL CHIP	470	5%	1/10W
R618	1-216-817-11	METAL CHIP	470	5%	1/10W
R619	1-216-817-11	METAL CHIP	470	5%	1/10W
R624	1-216-821-11	METAL CHIP	1K	5%	1/10W
R625	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
		< ROTARY ENCODER/SWITCH >			
S601	1-572-596-21	SWITCH, KEY BOARD (SRC)			
S602	1-762-365-21	SWITCH, TACTILE (SEL)			
S603	1-762-526-11	SWITCH (3)			
S604	1-762-365-21	SWITCH, TACTILE (PS, A.ME)			
S605	1-572-596-21	SWITCH, KEY BOARD (4)			
S606	1-762-365-21	SWITCH, TACTILE (▼)			
S607	1-572-596-21	SWITCH, KEY BOARD (TA)			
S608	1-762-365-21	SWITCH, TACTILE (PWR, MUTE)			
S609	1-572-596-21	SWITCH, KEY BOARD (1)			
S610	1-762-526-11	SWITCH (5)			
S611	1-762-365-21	SWITCH, TACTILE (▲)			
S612	1-762-365-21	SWITCH, TACTILE (LO)			
S613	1-572-596-21	SWITCH, KEY BOARD (2)			
S614	1-572-596-21	SWITCH, KEY BOARD (6)			
S615	1-762-365-21	SWITCH, TACTILE (DSPL)			

KEY **MAIN**

Ref. No.	Part No.	Description			Remark
S616	1-572-596-21	SWITCH, KEY BOARD (TUNER TU)			
S621	1-786-491-11	SWITCH, ROTARY (AUDIO CONTROL)			

****

	A-3274-707-A	MAIN BOARD, COMPLETE			
		*********************			
	3-376-464-11	SCREW (+PTT 2.6X6) , GROUND POINT			
	7-682-150-01	SCREW +P 3X12			
	7-685-792-09	SCREW +PTT 2.6X6 (S)			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
		< CAPACITOR >			
C101	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C102	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C103	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C104	1-128-551-11	ELECT	22uF	20%	25V
C105	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C106	1-124-589-11	ELECT	47uF	20%	16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C110	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C111	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C113	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C114	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C115	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C116	1-124-257-00	ELECT	2.2uF	20%	50V
C117	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C118	1-124-463-00	ELECT	0.1uF	20%	50V
C119	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C121	1-104-509-11	CERAMIC CHIP	0.018uF	10%	16V
C122	1-104-509-11	CERAMIC CHIP	0.018uF	10%	16V
C123	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C151	1-164-378-11	CERAMIC CHIP	30PF	5%	50V
C152	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C153	1-124-257-00	ELECT	2.2uF	20%	50V
C154	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C155	1-165-138-11	CERAMIC CHIP	560PF	2%	50V
C156	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C165	1-127-888-11	CERAMIC	0.1uF	10%	50V
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C202	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C203	1-124-233-11	ELECT	10uF	20%	16V
C204	1-124-233-11	ELECT	10uF	20%	16V
C205	1-126-966-11	ELECT	33uF	20%	50V
C206	1-126-966-11	ELECT	33uF	20%	50V
C207	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C208	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C209	1-126-160-11	ELECT	1uF	20%	50V
C210	1-126-160-11	ELECT	1uF	20%	50V
C211	1-104-665-11	ELECT	100uF	20%	10V
C212	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C213	1-126-947-11	ELECT	47uF	20%	16V
C401	1-126-160-11	ELECT	1uF	20%	50V
C402	1-126-160-11	ELECT	1uF	20%	50V
C403	1-164-346-11	CERAMIC CHIP	1uF		16V
C404	1-164-346-11	CERAMIC CHIP	1uF		16V
C405	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C406	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C407	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C408	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C409	1-124-233-11	ELECT	10uF	20%	16V
C410	1-124-233-11	ELECT	10uF	20%	16V
C411	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C412	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C413	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C414	1-131-664-11	CERAMIC CHIP	0.15uF	10%	10V
C415	1-124-233-11	ELECT	10uF	20%	16V
C416	1-124-233-11	ELECT	10uF	20%	16V
C417	1-124-259-11	ELECT	4.7uF	20%	35V
C418	1-126-963-11	ELECT	4.7uF	20%	50V
C419	1-126-963-11	ELECT	4.7uF	20%	50V
C420	1-124-259-11	ELECT	4.7uF	20%	35V
C423	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C424	1-124-584-00	ELECT	100uF	20%	10V
C425	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C426	1-128-551-11	ELECT	22uF	20%	25V
C427	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C428	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C429	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C430	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C431	1-126-160-11	ELECT	1uF	20%	50V
C432	1-126-964-11	ELECT	10uF	20%	50V
C433	1-126-964-11	ELECT	10uF	20%	50V
C434	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C435	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C501	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C502	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C503	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C504	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C505	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C506	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C507	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C508	1-164-733-11	CERAMIC CHIP	820PF	10%	50V
C509	1-126-964-11	ELECT	10uF	20%	50V
C510	1-128-551-11	ELECT	22uF	20%	25V
C511	1-126-956-11	ELECT	0.1uF	20%	50V
C512	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C513	1-126-768-11	ELECT	2200uF	20%	16V
C514	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C520	1-128-809-11	CERAMIC CHIP	00PF	5%	50V
C521	1-128-809-11	CERAMIC CHIP	00PF	5%	50V
C522	1-128-809-11	CERAMIC CHIP	00PF	5%	50V
C701	1-126-160-11	ELECT	1uF	20%	50V
C702	1-126-160-11	ELECT	1uF	20%	50V
C703	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C704	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C801	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C802	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C803	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C804	1-126-934-11	ELECT	220uF	20%	16V
C805	1-126-947-11	ELECT	47uF	20%	16V
C806	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C901	1-126-956-11	ELECT	0.1uF	20%	50V
C902	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C903	1-124-584-00	ELECT	100uF	20%	10V
C904	1-125-691-11	DOUBLE LAYER	0.022F		5.5V
C907	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C908	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C909	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C910	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C911	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C914	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C915	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< CONNECTOR >			
* CN201	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN202	1-564-511-11	PLUG, CONNECTOR 8P			
CN701	1-817-333-11	SOCKET, CONNECTOR 15P			
CN802	1-774-701-21	PIN, CONNECTOR 16P			
		< DIODE >			
D101	8-719-991-33	DIODE 1SS133T-77			
D102	8-719-991-33	DIODE 1SS133T-77			
D151	8-719-109-85	DIODE RD5.1ESB2			
D402	8-719-987-69	DIODE DAN217			
D403	8-719-991-33	DIODE 1SS133T-77			
D501	8-719-904-02	DIODE 1N4002			
D502	8-719-904-02	DIODE 1N4002			
D503	8-719-904-02	DIODE 1N4002			
D504	8-719-904-02	DIODE 1N4002			
D505	8-719-904-02	DIODE 1N4002			
D506	8-719-904-02	DIODE 1N4002			
D507	8-719-904-02	DIODE 1N4002			
D508	8-719-904-02	DIODE 1N4002			
D509	8-719-109-97	DIODE RD6.8ES-B2			
D510	8-719-914-43	DIODE DAN202K			
D701	8-719-109-97	DIODE RD6.8ES-B2			
D702	8-719-109-97	DIODE RD6.8ES-B2			
D703	8-719-109-97	DIODE RD6.8ES-B2			
D704	8-719-109-97	DIODE RD6.8ES-B2			
D705	8-719-914-43	DIODE DAN202K			
D720	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D721	8-719-056-83	DIODE UDZ-TE-17-6.8B			
D801	8-719-030-52	DIODE 1N5402			
D802	8-719-109-97	DIODE RD6.8ES-B2			
D803	8-719-110-17	DIODE RD10ESB2			
D804	8-719-109-85	DIODE RD5.1ESB2			
D806	8-719-109-92	DIODE RD6.2ES-B2			
D807	8-719-109-97	DIODE RD6.8ES-B2			
D808	8-719-991-33	DIODE 1SS133T-77			
D810	8-719-904-02	DIODE 1N4002			
D811	8-719-904-02	DIODE 1N4002			
D902	8-719-109-85	DIODE RD5.1ESB2			
D906	8-719-991-33	DIODE 1SS133T-77			
		< FUSE >			
F801	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) (10A/32V)			
		< IC >			
IC151	8-759-065-98	IC SAA6579T			
IC201	8-759-800-66	IC LA3161			

Ref. No.	Part No.	Description		Remark
IC401	8-759-487-82	IC LC75374E		
IC501	6-703-824-01	IC TA8252H		
IC901	6-802-759-01	IC uPD178078GF-565-3BA		
		< JACK >		
J101	1-817-334-11	JACK (ANT) (FM/AM ANTENNA)		
J401	1-774-698-11	JACK, PIN 2P (REAR)		
		< SHORT >		
JC101	1-216-295-00	SHORT CHIP	0	
JC103	1-216-295-00	SHORT CHIP	0	
JC104	1-216-295-00	SHORT CHIP	0	
JC105	1-216-295-00	SHORT CHIP	0	
JC106	1-216-295-00	SHORT CHIP	0	
JC108	1-216-295-00	SHORT CHIP	0	
JC109	1-216-295-00	SHORT CHIP	0	
JC110	1-216-295-00	SHORT CHIP	0	
JC111	1-216-295-00	SHORT CHIP	0	
JC113	1-216-295-00	SHORT CHIP	0	
JC115	1-216-295-00	SHORT CHIP	0	
JC116	1-216-295-00	SHORT CHIP	0	
JC121	1-216-295-00	SHORT CHIP	0	
JC122	1-216-295-00	SHORT CHIP	0	
JC123	1-216-295-00	SHORT CHIP	0	
JC124	1-216-295-00	SHORT CHIP	0	
JC125	1-216-295-00	SHORT CHIP	0	
JC126	1-216-295-00	SHORT CHIP	0	
JC127	1-216-295-00	SHORT CHIP	0	
JC128	1-216-295-00	SHORT CHIP	0	
JC129	1-216-296-11	SHORT CHIP	0	
JC256	1-216-295-00	SHORT CHIP	0	
JC258	1-216-295-00	SHORT CHIP	0	
JC259	1-216-295-00	SHORT CHIP	0	
JC262	1-216-295-00	SHORT CHIP	0	
		< COIL >		
L101	1-410-324-11	INDUCTOR	4.7uH	
L102	1-424-759-11	COIL (AM ANT)		
L701	1-410-324-11	INDUCTOR	4.7uH	
L801	1-456-316-11	COIL, CHOKE	370uH	
L901	1-410-517-11	INDUCTOR	47uH	
		< TRANSISTOR >		
Q101	8-729-421-22	TRANSISTOR	UN2211	
Q102	8-729-010-05	TRANSISTOR	MSB709-RT1	
Q103	8-729-010-25	TRANSISTOR	MSD601-RT1	
Q105	8-729-010-25	TRANSISTOR	MSD601-RT1	
Q106	8-729-010-25	TRANSISTOR	MSD601-RT1	
Q107	8-729-010-25	TRANSISTOR	MSD601-RT1	
Q108	8-729-010-25	TRANSISTOR	MSD601-RT1	
Q201	8-729-925-67	TRANSISTOR	DTB123YS-TP	
Q202	8-729-421-22	TRANSISTOR	UN2211	
Q403	8-729-010-25	TRANSISTOR	MSD601-RT1	
Q404	8-729-027-44	TRANSISTOR	DTC114TKA-T146	
Q405	8-729-027-44	TRANSISTOR	DTC114TKA-T146	
Q406	8-729-027-44	TRANSISTOR	DTC114TKA-T146	
Q407	8-729-027-44	TRANSISTOR	DTC114TKA-T146	
Q408	8-729-027-24	TRANSISTOR	DTA114TKA-T146	

MAIN

Ref. No.	Part No.	Description				Remark
Q410	8-729-027-44	TRANSISTOR	DTC114TKA-T146			
Q411	8-729-421-22	TRANSISTOR	UN2211			
Q501	8-729-027-24	TRANSISTOR	DTA114TKA-T146			
Q801	8-729-209-60	TRANSISTOR	2SB1375			
Q802	8-729-421-22	TRANSISTOR	UN2211			
Q803	8-729-209-15	TRANSISTOR	2SD2012			
Q804	8-729-039-83	TRANSISTOR	2SD1858-QR-TV2			
Q807	8-729-421-22	TRANSISTOR	UN2211			
Q808	8-729-901-06	TRANSISTOR	DTA144EK			
		< RESISTOR >				
R101	1-247-903-00	CARBON	1M	5%	1/4W	
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-249-408-11	CARBON	180	5%	1/4W	
R104	1-249-393-11	CARBON	10	5%	1/4W	
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R106	1-216-839-11	METAL CHIP	33K	5%	1/10W	
R107	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R108	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R109	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R110	1-216-013-00	METAL CHIP	33	5%	1/10W	
R111	1-216-001-00	METAL CHIP	10	5%	1/10W	
R112	1-216-820-11	METAL CHIP	820	5%	1/10W	
R113	1-216-864-11	SHORT CHIP	0			
R114	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R115	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R116	1-249-417-11	CARBON	1K	5%	1/4W	
R118	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R119	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R121	1-249-427-11	CARBON	6.8K	5%	1/4W	
R122	1-249-427-11	CARBON	6.8K	5%	1/4W	
R123	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R124	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R151	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R152	1-249-411-11	CARBON	330	5%	1/4W	
R201	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R202	1-216-849-11	METAL CHIP	220K	5%	1/10W	
R203	1-216-804-11	METAL CHIP	39	5%	1/10W	
R204	1-216-804-11	METAL CHIP	39	5%	1/10W	
R205	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
R206	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
R207	1-216-847-11	METAL CHIP	150K	5%	1/10W	
R208	1-216-847-11	METAL CHIP	150K	5%	1/10W	
R209	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R210	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R211	1-249-401-11	CARBON	47	5%	1/4W	
R212	1-247-847-11	CARBON	4.7K	5%	1/4W	
R213	1-247-847-11	CARBON	4.7K	5%	1/4W	
R214	1-249-417-11	CARBON	1K	5%	1/4W	
R215	1-247-871-11	CARBON	47K	5%	1/4W	
R216	1-247-871-11	CARBON	47K	5%	1/4W	
R217	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R401	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R402	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R403	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R404	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R405	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R406	1-249-417-11	CARBON	1K	5%	1/4W	
R407	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R408	1-249-417-11	CARBON	1K	5%	1/4W	
R415	1-249-417-11	CARBON	1K	5%	1/4W	
R416	1-249-417-11	CARBON	1K	5%	1/4W	
R417	1-249-417-11	CARBON	1K	5%	1/4W	
R418	1-249-417-11	CARBON	1K	5%	1/4W	
R419	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R420	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R421	1-247-847-11	CARBON	4.7K	5%	1/4W	
R422	1-216-857-11	METAL CHIP	1M	5%	1/10W	
R423	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R424	1-247-855-11	CARBON	10K	5%	1/4W	
R425	1-216-857-11	METAL CHIP	1M	5%	1/10W	
R426	1-249-417-11	CARBON	1K	5%	1/4W	
R427	1-249-417-11	CARBON	1K	5%	1/4W	
R428	1-249-417-11	CARBON	1K	5%	1/4W	
R429	1-247-839-11	CARBON	2.2K	5%	1/4W	
R430	1-247-855-11	CARBON	10K	5%	1/4W	
R433	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R451	1-247-807-31	CARBON	100	5%	1/4W	
R501	1-249-430-11	CARBON	12K	5%	1/4W	
R502	1-249-430-11	CARBON	12K	5%	1/4W	
R503	1-249-430-11	CARBON	12K	5%	1/4W	
R504	1-249-430-11	CARBON	12K	5%	1/4W	
R505	1-216-836-11	METAL CHIP	18K	5%	1/10W	
R506	1-216-836-11	METAL CHIP	18K	5%	1/10W	
R507	1-216-836-11	METAL CHIP	18K	5%	1/10W	
R508	1-216-836-11	METAL CHIP	18K	5%	1/10W	
R509	1-247-839-11	CARBON	2.2K	5%	1/4W	
R510	1-249-417-11	CARBON	1K	5%	1/4W	
R511	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R521	1-249-417-11	CARBON	1K	5%	1/4W	
R522	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	
R523	1-247-879-11	CARBON	100K	5%	1/4W	
R524	1-247-879-11	CARBON	100K	5%	1/4W	
R525	1-247-879-11	CARBON	100K	5%	1/4W	
R526	1-247-879-11	CARBON	100K	5%	1/4W	
R701	1-247-847-11	CARBON	4.7K	5%	1/4W	
R702	1-247-847-11	CARBON	4.7K	5%	1/4W	
R703	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
R704	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
R705	1-249-417-11	CARBON	1K	5%	1/4W	
R706	1-249-417-11	CARBON	1K	5%	1/4W	
R707	1-249-417-11	CARBON	1K	5%	1/4W	
R708	1-249-417-11	CARBON	1K	5%	1/4W	
R709	1-249-417-11	CARBON	1K	5%	1/4W	
R710	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R711	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R712	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R801	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R803	1-247-855-11	CARBON	10K	5%	1/4W	
R804	1-260-326-11	CARBON	680	5%	1/2W	
R805	1-260-296-11	CARBON	2.2	5%	1/2W	
R806	1-249-413-11	CARBON	470	5%	1/4W	
R807	1-247-879-11	CARBON	100K	5%	1/4W	
R808	1-249-403-11	CARBON	68	5%	1/4W	
R809	1-249-427-11	CARBON	6.8K	5%	1/4W	
R810	1-247-847-11	CARBON	4.7K	5%	1/4W	

MAIN

Ref. No.	Part No.	Description			Remark
R902	1-247-879-11	CARBON	100K	5%	1/4W
R903	1-247-871-11	CARBON	47K	5%	1/4W
R904	1-216-864-11	SHORT CHIP	0		
R905	1-249-417-11	CARBON	1K	5%	1/4W
R906	1-249-417-11	CARBON	1K	5%	1/4W
R908	1-216-845-11	METAL CHIP	100K	5%	1/10W
R909	1-216-845-11	METAL CHIP	100K	5%	1/10W
R910	1-216-845-11	METAL CHIP	100K	5%	1/10W
R912	1-247-871-11	CARBON	47K	5%	1/4W
R913	1-247-871-11	CARBON	47K	5%	1/4W
R914	1-247-871-11	CARBON	47K	5%	1/4W
R915	1-247-839-11	CARBON	2.2K	5%	1/4W
R916	1-216-845-11	CARBON	100K	5%	1/10W
R917	1-216-845-11	CARBON	100K	5%	1/10W
R920	1-216-841-11	METAL CHIP	47K	5%	1/10W
R921	1-247-839-11	CARBON	2.2K	5%	1/4W
R922	1-247-839-11	CARBON	2.2K	5%	1/4W
R923	1-247-839-11	CARBON	2.2K	5%	1/4W
R924	1-247-839-11	CARBON	2.2K	5%	1/4W
R925	1-216-845-11	METAL CHIP	100K	5%	1/10W
R926	1-216-845-11	METAL CHIP	100K	5%	1/10W
R927	1-216-845-11	METAL CHIP	100K	5%	1/10W
R928	1-216-845-11	METAL CHIP	100K	5%	1/10W
R929	1-216-845-11	METAL CHIP	100K	5%	1/10W
R930	1-216-845-11	METAL CHIP	100K	5%	1/10W
R933	1-216-837-11	METAL CHIP	22K	5%	1/10W
R936	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< VARIABLE RESISTOR >			
RV101	1-241-768-11	RES, ADJ, CARBON 220K			
		< SWITCH >			
S901	1-692-431-21	SWITCH, TACTILE (RESET)			
		< THERMISTOR >			
THP802	1-809-842-21	THERMISTOR			
		< TUNER >			
TU101	1-693-611-11	TUNER UNIT (FAE347-E40)			
		< VIBRATOR >			
X151	1-795-864-11	VIBRATOR, CRYSTAL (4.332MHz)			
X901	1-795-863-11	VIBRATOR, CRYSTAL (6.3MHz)			

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MISCELLANEOUS
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Ref. No.	Part No.	Description	Remark
9	A-3337-313-A	MACHANICAL DECK ASSY (CDS-363AG1-A)	
11	1-776-527-82	CORD (WITH CONNECTOR) (ISO) (POWER)	
LCD601	1-805-164-11	DISPLAY PANEL, LIQUID CRYSTAL	

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ACCESSORIES
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Ref. No.	Part No.	Description	Remark
	3-252-883-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, FRENCH, GERMAN, ITALIAN, DUTCH, POLISH, HUNGARIAN, CZECH, RUSSIAN)	
	3-254-658-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, FRENCH, GERMAN, ITALIAN, DUTCH, POLISH, HUNGARIAN, CZECH, RUSSIAN)	

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PARTS FOR INSTALLATION AND CONNECTIONS
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Ref. No.	Part No.	Description	Remark
501	3-250-171-01	FRAME, FITTING	
502	3-250-255-01	COLLAR	
503	3-251-080-01	KEY, FRAME	
504	3-251-083-01	HOLDER, REAR	
505	X-3383-233-2	SCREW ASSY (A)	
506	1-776-527-82	CORD (WITH CONNECTOR) (ISO) (POWER)	

